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**From:** Giedrius Ambrozaitis

**Sent:** Tue 1/8/2008 3:36:16 PM

**Subject:** SCR Stakeholder Group -- Meetings tomorrow January 9 starting @ 10am at API in in DC

[SCR Stakeholder group email list - Jan 2008.xls](#)

[DEF Starburst Quality Program Subcommittee & SCR Stakeholder Mtg agendas January 9 2008.doc](#)

[Minutes SCR Urea stakeholders workgroup - November 29 2007.doc](#)

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Attached are the agendas for the meetings and the minutes from the previous meeting.

This is a reminder notice that the next SCR Stakeholder Group meeting and the next DEF "Starburst" Quality Subcommittee meeting will both be held on January 9 at the American Petroleum Institute offices (1220 L Street, NW Washington, DC 20005-4070), beginning at 10:00 AM EST. The call-in number will be 1-866-443-0059 with **Non-Responsive** for both meetings. A working lunch will be provided.

The first meeting will be the DEF "Starburst" Quality Subcommittee and will start at 10:00 am EST.

The second meeting will be the SCR Stakeholder Group and will start at 12:15 pm EST (right after lunch).

For lunch headcount planning, please RSVP to Alicia Raymond of API (email: raymonda@api.org ) if you are planning to attend in person.

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The SCR Stakeholder Group (formerly called the Urea Stakeholder Group) is made up of industries, organizations and companies interested in urea for mobile source applications.

Participants include:

- Government (US Department of Energy, EPA)
- Automotive and heavy-duty engine and truck manufacturer trade associations
- Fuel retailer and truck stop trade associations
- Oil companies
- Urea distributors

The main objectives of the SCR Stakeholder Group are:

- To exchange information with US government and other potential urea stakeholders on the potential market and need for urea availability.
- To consider effective education and outreach to consumers and commercial concerns about urea, its use and availability.
- To engage potential providers of urea availability to determine the conditions necessary for provision of retail availability before a profitable market exists.

If you have any questions concerning the SCR Stakeholder Group or the meeting, please call me at (248) 357-4796.

Sincerely,

Giedrius Ambrozaitis  
Manager of Mobile Sources  
Alliance of Automobile Manufacturers  
Tel. (248) 357-4796  
email: [gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)



**Agendas**  
**DEF "Starburst" Quality Program Subcommittee Meeting ( 10:00 am- 11:45 am)**  
**and**  
**SCR Stakeholder Group Meeting (12:00 pm - 2:00 pm)**  
**January 9, 2008**

Location (for both meetings):

**American Petroleum Institute**

1220 L Street, NW Washington, DC 20005-4070

Conference call number (for both meetings):

1-866-443-0059

**Non-Responsive**

Agendas

**DEF "Starburst" Quality Program Subcommittee Meeting ( 10:00 am- 12:00 noon)**

|   |                                 |        |
|---|---------------------------------|--------|
| <b>1. Introduction/Roll Call</b>  | Patrick Kelly/Kevin Ferrick     | 5 min  |
| <b>2. Subcommittee organization</b><br>a. Objectives & deliverables<br>b. Membership              | Patrick Kelly/Kevin Ferrick/All | 30 min |
| <b>3. Presentation on DEF "Starburst" Quality program</b><br>a. Discussion of program             | Kevin Ferrick<br>All            | 60 min |
| <b>4. Subcommittee Meeting Closure</b><br>Recap Action Items/Assignments<br>Schedule Next Meeting | Patrick Kelly/Kevin Ferrick/All | 10 min |

**Lunch (12 noon - 12:15pm )**

**SCR Stakeholder Group Meeting (12:15 pm - 2:00 pm)**

|   |   |        |
|---|---|--------|
| <b>1. Introduction/Roll Call</b>  | Ambrozaitis   | 5 min  |
| <b>2. Review of previous meeting</b>  | Kulik/All   | 5 min  |
| <b>3. DHS CFATS Appendix A update</b>   | Kulik/All   | 1 min  |
| <b>4. Urea Retail Distribution Discussion</b><br>a. Current Topics<br>b. Milestones and targets<br>c. Update on DEF "Starburst" subcommittee developments<br>d. Latest Industry Developments<br>i. Standards update | Kulik/All<br><br>Patrick Kelly/Kevin Ferrick<br>All<br><br>George Evalt | 65 min |
| <b>5. Education and Outreach</b><br><b>Education Tools</b><br>Website( DOE Urea Locator )<br>Website (Fact sheets)  | DOE / All   | 45 min |
| <b>6. Meeting Closure</b><br>Recap Action Items/Assignments<br>New Business<br>Schedule Next Meeting  | Kulik/All   | 5 min  |

## **Minutes of the SCR Stakeholders Group Open Meeting**

1220 L Street, NW Washington, DC 20005-4070

Thursday, November 29, 2007, 12:15am-2:15pm

### Participants:

\* Ed Kulik – Ford  
\* Doug McGregor – BMW  
Brandon Wright - PMAA  
Greg Croce - Chevron

John Rugge – Subaru

\* Ex. 7 - VW

Michael Koss - Dureal  
Patrick Kelly - API  
Cliff Dean - EPA  
Chris Nevers - EPA  
David Shaw - Clean Emission Fluids  
Oliver Baer - Clean Emission Fluids  
Amy Lilly - Honda  
Allen Armstrong - Industrial Solution Services  
Aneja Rakesh - Detroit Diesel  
Joy Johnson - Volvo/Mack  
Vic Meloche - Detroit Diesel  
Thomas Troeger - Rehau  
Jim Collura - New England Fuel Institute  
  
\* Zafar Shaikh - Ford  
Jim Spooner - Colonial Chemical

Brendan Foster - Benecor  
Rasto Brezny - MECA  
Shaun Carvey - Mitsui Mining & Smelting  
Alistair Wallace - Integer Research  
FindAdBlue.com  
Holly Alfano - NATSO  
Jackie Yeager - Cummins  
Barry Lonsdale - Terra Industries  
John Lounsbury - Terra Industries  
Donald Thomas - Terra Industries  
George Evalt - SAE/ISO  
Erich Becker - Terra Environmental  
Memed Uzel - Mack  
Shawn Whitaker - Cummins  
Mark Morgan - PMAA  
  
Greg Shank - Volvo Powertrain  
Kevin Ferrick - API  
Dennis Bachelder - API  
Matthias Kruse - Kruse KG  
Roberto Boeker - AluMag Automotive LLC  
John Cabaniss - AIAM  
Ellen Gleberman - AIAM  
\* Giedrius Ambrozaitis - Alliance

\*Alliance Work Group members or staff.

| <b>Action items</b>  | <b>Responsible</b> | <b>Deadline</b> |
|--|--------------------|-----------------|
| Discuss with DOE requirements for the urea locator service | Ed Kulik           | Next meeting    |
| Update and circulate urea locator website template.        | Ed Kulik           | Next meeting    |

### Minutes:

1. Roll call was taken and the antitrust advisories were presented.
2. The group approved the previous meeting minutes and actions items.

3. The group noted that the final Dept. of Homeland Security CFATS rule list did not include urea and so this is no longer an issue.
4. Kevin Ferrick updated the group on the subcommittee's progress with the Starburst quality control program for DEF (Diesel Exhaust Fluid). The subcommittee reviewed the program and identified licensing types (producers, blenders, bulk distributors, branders) and licensee expectations from the program. Kevin noted the SCR Stakeholder Group should address the ongoing governance of the program, in conjunction with an API Task Force of producers and manufacturers. Zafar Shaikh agreed to investigate ownership of the quality symbol with USCAR.
5. George Evalt updated the group on the status of standards. Draft ISO standard ISO 22241-3 Urea Infrastructure has gone to publication and is due to be published before the end of the 1st quarter. The ISO 22241-4 Refill Interface is in the process of balloting. The US issue with the mandatory magnet requirement has been addressed by adding a footnote indicating that manufacturers are "encouraged" to use it. ISO 22241-4 will only apply to Light Duty and not to Heavy Duty vehicles.
6. Zafar Shaikh reported that the SAE symbol for urea ("sideways ice cream cone") has been approved and will be published soon. Japan has also chosen a different symbol than the international ISO symbol ("fuel pump with the word NOx"). Zafar also reported that USCAR has developed (for vehicles without a message center) a recommended chain of events warning chain for the first 2 stages of Inform/Warn/Compel. USCAR will develop the same warning chain for vehicles with a message center. Next steps are to get agreement from vehicles OEMs and EMA/TMA and then have SAE adopt the warning chains as SAE standards.
7. The group discussed education and outreach. Ed Kulik reported that DOE is basing its urea locator website time planning on an anticipated rollout of vehicles starting in November 2008. DOE would then start demonstration work on the urea locator database in February-March and target completion in the June-July 2008 timeframe. Ed asked OEMs to verify that this timing will work for them. The group noted that more information on the filtering process that DOE uses in the existing Clean Cities database would be helpful in filtering urea locations. The group suggested that the DOE website should be linked to navigation providers (TomTom, Navtech, Garmin, Onstar, etc.).
8. Mr. Mathias Kruse of the Kruse Company made a presentation to the group about the Kruse urea bottle-to-vehicle connector.
9. Dr. Thomas Troeger of the Rehau Company made a presentation to the group about the company's product line of heaters for urea lines and tanks.
10. The next meeting was of the SCR Stakeholder Group and the DEF "Starburst" Quality Program Subcommittee was scheduled for Wednesday January 9, 2008 in Washington DC.

Giedrius Ambrozaitis

January 7, 2008

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**From:** Giedrius Ambrozaitis

**Sent:** Tue 1/8/2008 9:24:12 PM

**Subject:** SCR Stakeholder Group -- Material for tomorrow's SCR Stakeholder Group meeting  
REV3B Initial Planning Document DOE(NREL) Diesel Exhaust Fluid Locator Service.doc  
[raymonda@api.org](mailto:raymonda@api.org)  
[gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)

Also attached is a DOE website planning document for discussion at tomorrow's SCR Stakeholder Group meeting.

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Attached are the agendas for the meetings and the minutes from the previous meeting.

This is a reminder notice that the next SCR Stakeholder Group meeting and the next DEF "Starburst" Quality Subcommittee meeting will both be held on January 9 at the American Petroleum Institute offices (1220 L Street, NW Washington, DC 20005-4070), beginning at 10:00 AM EST. The call-in number will be 1-866-443-0059 with

**Non-Responsive** for both meetings. A working lunch will be provided.

The first meeting will be the DEF "Starburst" Quality Subcommittee and will start at 10:00 am EST.

The second meeting will be the SCR Stakeholder Group and will start at 12:15 pm EST (right after lunch).

For lunch headcount planning, please RSVP to Alicia Raymond of API (email: raymonda@api.org ) if you are planning to attend in person.

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The SCR Stakeholder Group (formerly called the Urea Stakeholder Group) is made up of industries, organizations and companies interested in urea for mobile source applications.

Participants include:

- Government (US Department of Energy, EPA)
- Automotive and heavy-duty engine and truck manufacturer trade associations
- Fuel retailer and truck stop trade associations
- Oil companies
- Urea distributors

The main objectives of the SCR Stakeholder Group are:

To exchange information with US government and other potential urea stakeholders on the potential market and need for urea availability.

To consider effective education and outreach to consumers and commercial concerns about urea, its use and availability.

To engage potential providers of urea availability to determine the conditions necessary for provision of retail availability before a profitable market exists.

If you have any questions concerning the SCR Stakeholder Group or the meeting, please call me at (248) 357-4796.

Sincerely,

Giedrius Ambrozaitis  
Manager of Mobile Sources  
Alliance of Automobile Manufacturers  
Tel. (248) 357-4796  
email: [gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)



**DRAFT**  
***Scope of Work and Deliverables for NREL(DOE) Development***  
***To support Diesel SCR/Diesel Exhaust Fluid Locator Service***

**Background and Purpose:**

In order to meet current and future United States vehicle emissions requirements, some diesel vehicles certified for use in the US will be implementing a new emissions control technology requiring periodic refilling of a new automotive fluid. These types of vehicles are typically referred to as diesel SCR (Selective Catalytic Reduction) vehicles. We expect diesel SCR technology to be available on light, medium, and heavy-duty vehicle applications.

This new automotive fluid reduces nitrogen oxide emissions from diesel vehicles which are regulated by the US EPA and the California Air Resources Board. Diesel Exhaust Fluid will be stored on vehicles, very much like windshield solvent, and require replenishment at various mileage intervals depending on vehicle type and use. Light-duty applications will likely target services coupled with oil change intervals. Medium and heavy-duty applications may require more or less frequent refill intervals.

Vehicle manufacturers intend to establish supplies of this fluid through a wide variety of retail businesses within the United States. Several trade organizations, including the Alliance of Automobile Manufacturers, the Engine Manufacturers Association, and the Truck Manufacturers Association are requesting support from the Department of Energy, and more specifically the National Renewable Energy Laboratory, to develop and implement a diesel exhaust fluid locator service.

The primary purpose of the service would be to provide and maintain locations of retail diesel exhaust fluid supplies in time to support the introduction of diesel SCR (Selective Catalytic Reduction) vehicles, which are expected to enter the US market as soon as the 2009 Model Year. A secondary purpose would be to provide a wide variety of consumer awareness information. This information is expected to include fact sheets related to the use of Diesel Exhaust Fluid as well as links to company and trade organization information of those actively contributing to the website content.

**Scope of Work & Key Deliverables:**

1. NREL staff would coordinate with stakeholders and lead the development of a national locator service for use by US consumers of Diesel Exhaust Fluid. Primary customers of the service will be private vehicle owners as well as fleet owners who operate light-duty, medium-duty or heavy-duty diesel SCR vehicles.
2. Evaluate multiple Communication channels for delivery of a national locator service to communicate information to target audience such as through land-line website, mobile internet, SMS/text messaging, cellular and other communications technologies currently accessible to consumers.
3. Ability of a locator service to interface with OEM vehicle communication and navigation technologies will also be evaluated.
4. Ability of locator service to take in feedback (helpful for addressing consumer concerns and making improvements)
5. The locator service would include information including but not limited to the following diesel exhaust fluid retail supply locations:
  - a. OEM dealerships
  - b. "Back-up Service"
  - c. Truck Stops
  - d. Diesel Fueling Stations
  - e. Centralized diesel fueling locations
  - f. Oil Change Service Stations
  - g. Automotive Part Distributors (retail)
  - h. Major Retail Outlets with Automotive Parts Supplies
6. The locator service would include a method for controlling and maintaining the quality of the data, such that locations are up to date and reliable for customers.
  - a. Options for controlling data, which require further discussion and resolution:
    - i. OEMS supply and update controlled data to NREL

Originator: Alliance of Automobile Manufacturers

Contacts: Ed Kulik/Giedrius Ambrozitius

Document Creation: September 14, 2007

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**DRAFT**  
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- ii. NREL develops and maintains a service to verify and update data.
- iii. A 3rd party is contracted by either NREL or OEMs to provide and maintain data quality
- b. Question regarding data quality:
  - i. How often is updating needed (recommendation is for monthly updates, at least in the short-term).
- 7. Critical database information for each location would include:
  - a. Address
  - b. Days of operation
  - c. Hours of operation
  - d. Phone number(s)
  - e. Type of diesel exhaust fluid dispensing capability (bottle v. pump, type of bottles)
  - f. Type of service provided: do it for me (DFM), or do it yourself (DIY)
  - g. General description for type of vehicles serviced (Heavy Truck, passenger car/truck, fleet)
  - h. Range of refill capacity needed for a given application
  - i. Participation in a quality control program (e.g., like the API starburst program)
  - j. Methods of payment available (credit/debit cards)
  - k. Security System – is access card needed? (e.g., centrally fueled locations)
- 8. Included in the service would be links to OEM website information, to help provide additional detail to consumers.
- 9. Education and awareness features would be included within the service. The primary intent is to help a variety of consumers understand the need and use of diesel exhaust fluid for their particular vehicle.
  - a. Fact sheets could be incorporated with information such as:
    - i. why we need diesel exhaust fluid and what are the environmental benefits,
    - ii. the price range of the fluid (may need to be a placeholder until we get closer to launch),
    - iii. typical refill methods,
    - iv. specification(s) of the fluid,
    - v. handling and disposal of the fluid.
  - b. FAQ section could include "what if" scenarios:
    - i. What happens if I run out of DEF?
    - ii. What happens if "poor fluid quality" is sensed ?(vehicle consequences)
    - iii. Will DEF freeze and how is this handled?
    - iv. Are there concerns with using the fluid in hot weather?
  - c. A communication and role out plan needs to be developed:
    - i. Coordination of DOE, OEMs and other stakeholders to help optimize the launch and messaging
      - 1. Suggest industry and government communications teams to develop plan jointly
- 10. Participation Placeholder: Companies and organizations would likely want to post a participation logo and potentially additional contact information.

**Milestones & Timing:**

- 1. Draft Initial Planning Document: Initiated September 19, 2007
- 2. Final draft Planning Document distributed for approval by participating companies and organizations: no later than November 30th, 2007.
- 3. Final Planning Document Approved: **January 31, 2008.**
- 4. Website Development work:
  - a. Structural work of the website (**February through end of March**) - standing meetings needed.
  - b. Request for database information sent to affected parties: **by February 15, 2008**
- 5. Locator database information provided to NREL development team: **by March 31, 2008**
- 6. NREL interim review of database development progress with key stakeholders: **~ mid April, 2008**

Originator: Alliance of Automobile Manufacturers

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7. Alpha pilot of locator service: **End of April**
8. **Implementation of locator Service: Beginning of July 08**
  - a. **Communication of service prior to launch & coordination with stakeholders (TBD).**

**General Roles and Responsibilities :**

Alliance of Automobile Manufacturers: solicit and facilitate input from member companies, to help develop and maintain retail diesel exhaust fluid location information, from a light-duty diesel perspective.

National Renewable Energy Lab: Develop and implement diesel exhaust fluid locator website and establish controls to maintain quality of information contained in the service.

Engine Manufacturers Association: Placeholder for future input and participation from a heavy duty perspective

Truck Manufacturers Association: Placeholder for future input and participation from a heavy duty perspective

Association of International Automobile Manufacturers: Placeholder for future input and participation from a light-duty perspective

Diesel Technology Forum – Provide general information on diesel engines, fuels, emissions technology and vehicles

Originator: Alliance of Automobile Manufacturers  
Contacts: Ed Kulik/Giedrius Ambrozitius  
Document Creation: September 14, 2007  
Last Update: January 2, 2008

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**From:** "Patrick Kelly"  
**Sent:** Wed 1/9/2008 3:06:01 PM  
**Subject:** RE: SCR Stakeholder Group -- Today's Presentation  
[DEFplanrev2.ppt](#)

The presentation is attached for those on the phone.

Patrick

# **Diesel Exhaust Fluid Certification Program**

SCR Stakeholder Group  
January 9, 2008

# Diesel Exhaust Fluid (DEF) Certification Program

*Primary goal: To ensure that diesel exhaust fluids meeting industry-established requirements are readily available*

- Voluntary program that certifies and monitors diesel exhaust fluid performance
- Licenses use of DEF mark on diesel exhaust fluid that meets ISO 22241 standard
- Certification from manufacturer to point-of-sale
- Established through agreement between API and USCAR?



# API's Role

- Certify against industry-recognized standards
- Authorize licensed companies to use registered mark on packaging and in conjunction with bulk sales
- Provide Directory of Licensees on-line in real-time
- Sample and test licensed products purchased in marketplace or gathered from licensed manufacturers
- Take enforcement actions against marketers and manufacturers not meeting certification requirements or misusing DEF mark

# Benefits of Certification

- Helps to ensure availability of diesel exhaust fluid meeting industry-recognized standards
- Identifies which products meet diesel engine manufacturer requirements and helps consumers find products meeting those requirements
- Gives consumers a choice of quality products from which to choose
- Helps reduce NOx emissions
- Provides rigorous monitoring of products in marketplace
- Takes enforcement action against companies not meeting diesel engine manufacturer requirements

# Performance Requirements and Program Documentation

- ISO 22241 Parts 1, 2 and 3
- API licensing guide [explanation of program, rules on use of mark, reference to ISO 22241, explanation of monitoring and enforcement, rules beyond those in ISO 22241(if needed)]
- API license application (ideally, on-line application process plus license agreement)
- Promotional literature
- On-line Directory of Licensees

# Certification Types

- Producer—produces DEF meeting ISO 22241
- Blender—blends DEF meeting ISO 22241
- Bulk distributor—distributes DEF to packagers, installers, and branders
- Packager—packages DEF meeting ISO 22241 and sells to installers
- Brander—sells DEF meeting ISO 22241 under unique brand name to installers

# Certification Types continued

Should there be additional requirements above ISO 22241?

- ISO 9001 certification for producers, blenders, and bulk distributors
- Commitment from all licensees to distinguish certified DEF from other urea products
- Method for clearly drawing distinction between certified DEF and uncertified

# Product Data and Information

## Examples of information required for licensing

- Product name and batch numbering scheme for bulk products
- Product name and container identification numbering scheme (traceability code) for packaged products (including IBCs and drums)
  - Batch number and/or container IDs must be legible
  - Both must enable traceability from point of manufacture to installation



| PART D—PRODUCT TRACEABILITY CODE (Example)   |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
|--|--|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|
| New York Oil Co.   | 777  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| Name of Company  | License no.  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| John Smith   | November 3, 1992   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| Name of Preparer   | Date   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 212 726-5000   | 212 726-5001   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| Telephone  | FAX  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| (If outside United States and Canada, include country and city code.)  |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 1. <b>Brand Name</b> <u>New York Supreme</u>   |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 2. <b>Viscosity Grade</b> <u>10W-30</u>  |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 3. <b>Product Traceability Code</b>  |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| Insert here and down the vertical column below the alphanumeric characters that comprise your product traceability code. The code must include your formulation identifiers.   |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| <table border="1" style="margin: auto; border-collapse: collapse;"><tr><td style="padding: 5px;">M</td><td style="padding: 5px;">2</td><td style="padding: 5px;">A</td><td style="padding: 5px;">4</td><td style="padding: 5px;">X</td><td style="padding: 5px;">2</td><td style="padding: 5px;">0</td><td style="padding: 5px;">#</td><td style="padding: 5px;">#</td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr></table> |  | M | 2 | A | 4 | X | 2 | 0 | # | # |  |  |  |  |  |  |
| M  | 2  | A | 4 | X | 2 | 0 | # | # |   |   |  |  |  |  |  |  |
| On the blank lines below, identify the meaning of the alphanumeric characters used in your product traceability code. Use the reverse side if additional space is needed.  |  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| <b>Characters<br/>From Above</b>   | <b>Interpretation</b>  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| M  | Plant Location   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 2  | Proprietary; not necessary for formulation identification                      |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| A  | Specific formulation   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 4  | Not relevant to this matter  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| X  | Proprietary; not necessary for formulation identification                      |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 2  | This line & next two indicate the day of the year the product was manufactured |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 0  | See above  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| 2  | See above  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| #  | Time of manufacture: 1 = a.m.; 2 = p.m.; etc.                                  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |
| #  | Year of manufacture: 1 = 2001; 2 = 2002; etc.                                  |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |

# DEF Audit Program

## Modeled after EOLCS Aftermarket Audit Program

- Samples drawn from marketplace annually (packaged and bulk)
  - Blind-number coded and shipped to test lab
  - Identity of sample known only by API
  - Sample undergoes series of tests
  - Test results evaluated and licensee notified of results
  - Enforcement action taken as needed (varies from assurance of correction to cancellation of license or recall)
- Packaged products inspected for proper use of mark
- Bulk shipment paperwork audited (see attached flow chart of potential sampling opportunities)
- Summary report delivered to governing committees and other interested parties
- Emphasis on protection of proprietary information



# Audit Testing

What tests do we run?

- Urea content
- Density
- Refractive index
- Alkalinity
- Biuret
- Aldehydes
- Insoluble matter
- Elements (phosphate, calcium, iron, copper, etc)
- Any others outside of the spec?

# Audit Testing continued

- Testing conducted in accordance with ISO 22241-2
- Two to four liters collected to allow for testing and retesting
- Evaluation of shelf life?
- Conformance judged within precision of test methods (Annex B ISO 22241-1)
- Appropriateness of containers part of audit (for example, alloyed steels vs nonalloyed steels)?

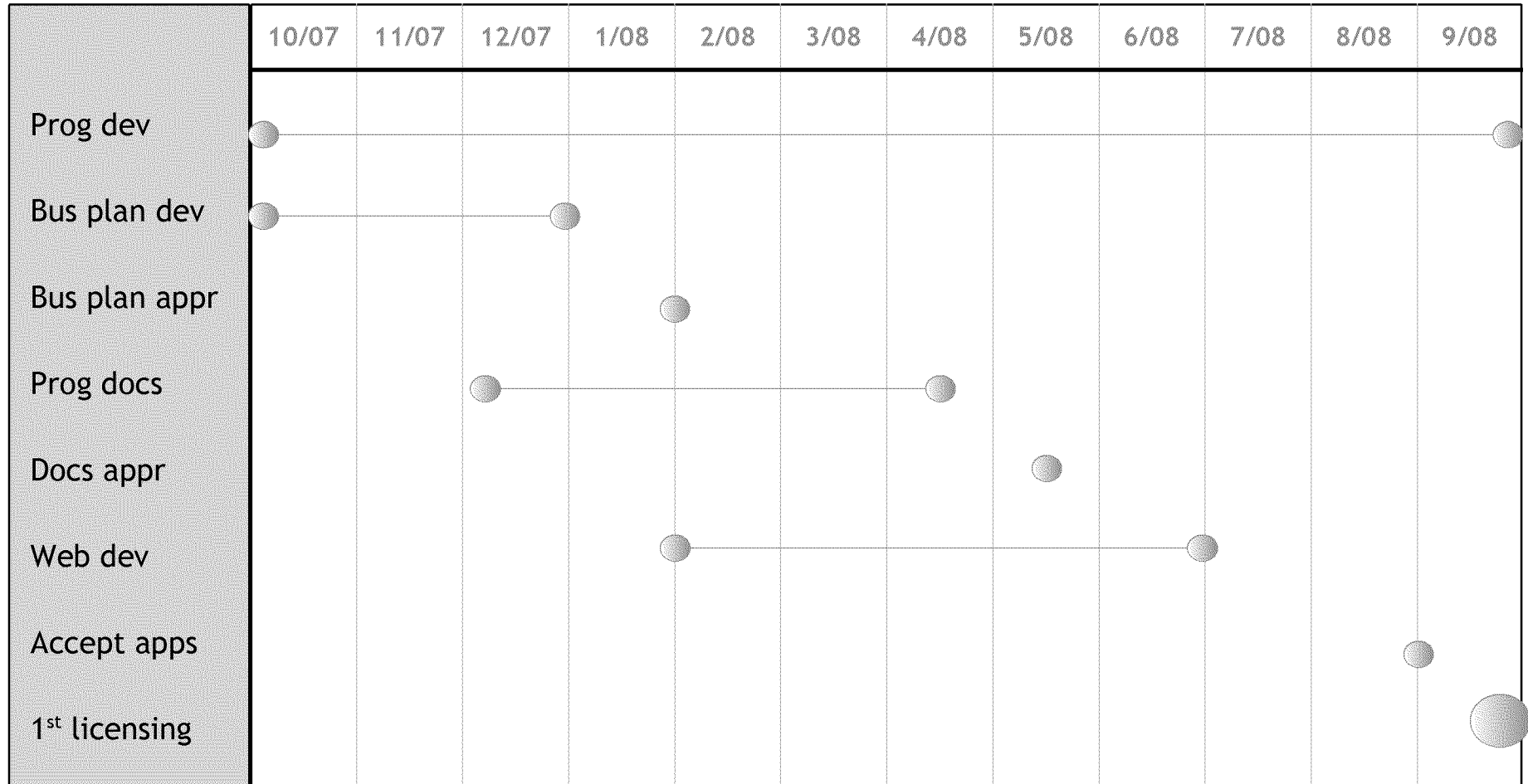
# Program Governance

- API Committee on Special Programs (oversees dollars and cents of program)
- API Marketing Committee and designated technical committee?
- SCR Stakeholder Group
  - EOLCS works in conjunction with OEMs to establish standards
  - Similar arrangement envisioned for DEF?

# Fees

- Amounts to be determined
- Fee for each certification type (producer, blender, bulk distributor, etc)
- Fees assessed by license
- Annual renewal
- Volume-of-sale fee might be necessary if number of licenses limited

# DEF Certification Development and Introduction



## Next Steps

- Finalize work group that will assist API in drafting program
- Work group hammers out details of program
- API and SCR Stakeholder Group determine governance
- Obtain Special Programs Committee approval

**To:** Lynn Sohacki/AA/USEPA/US@EPA; Bernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA[]

**Cc:** Ex. 7

Ex. 7

**From:** Ex. 7

**Sent:** Fri 1/18/2008 8:52:38 PM

**Subject:** Test Parameters For EPA In-Use Surveillance Test Program - Engine Family 5VWXV02.5253 / 4th vehicle

# TEST-PARAMETERS 5VWXV025253\_080118.xls

Ladies and Gentlemen,

Please find below the test information and parameters for the 4th vehicle (L108RXX-0136) to be tested within the actual EPA In-Use Surveillance Test Program - Eng. Fam. 5VWXV02.5253:

Lab: NVFEL Ann Arbor,  
Michigan  
Engine Family: 5VWXV02.5253  
Estimated Start Date: November 16, 2007  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-108 / L-109 (low mileage / high mileage)

- General Test Group Information:

-----  
Engine Fam.: 5VWXV02.5253  
Concept: 2.5L / I5 150 hp  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 150 hp  
Models in TG: VW Jetta A5 (2.5)  
EVAP Fam.: 5VWXR0110238  
EVAP Standard: C2  
# of sold vehicles in TG: 29,244

- General Vehicle Group Information:

-----  
Tank Capacity 100% [l] 55.0 [l]  
Tank Capacity 40% [l] 22.0 [l]  
Tank Capacity 100% [gal] 14.53 [gal]  
Tank Capacity 40% [gal] 5.81 [gal]  
Canister Working Cap. [g] 110  
Standard Tire Size 205/55 R16  
Axle Ratio 3.504 (L6/2) / 3.647 (M5/2)  
Target road-load coef. 24.73 (F0) 0.3654 (F1)  
0.0170 (F2) - for L6/2  
22.71 (F0)  
0.1049 (F1) 0.0194 (F2) - for M5/2

- Model & VIN specific Test Parameters for the last three and the 4th vehicle: => see attached .xls spreadsheet

- VIN specific Information:

(4) **Ex. 6** (2005 VW Jetta A5 (2.5)) -- vehicle inspection scheduled for 01/24/2008 (Thursday) at ~09:30

|                  |                           |
|------------------|---------------------------|
| VIN:             | <b>Ex. 6</b>              |
| Make/Model:      | VLK / JET / Jetta A5 2.5L |
| Model Code:      | 1K27N1                    |
| Exterior Color:  | WHEAT BEIGE               |
| Prod Date:       | 05/09/2005                |
| In Service Date: | 06/23/2005                |
| Engine#:         | BGP 025106                |
| Vehicle Source:  | Mexico                    |

In case of any questions or need of additional information, please don't hesitate to contact me.

Best regards,

**Ex. 7**



## Test Parameters For EPA In-Use Surveillance Test Program L-108 / L-109 (5VW XV02.5253)

**Engine Fam.:** 5VW XV02.5253  
**Concept:** 2.5L / I5 150 hp  
**Em. Standard:** ULEV II - BIN 5  
**Sales Area:** 50 States / Canada  
**Engine HP:** 150 hp  
**Engine Code:** BGP  
**Models in TG:** VW Jetta A5 (2.5)  
**EVAP Fam.s in TG:** 5VWXR0110238  
**EVAP Standard:** C2  
**# of sold vehicles in TG:** 29,244

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN          | Body Type | Trim Level | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|---------------------------|--------------|-----------|------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L108RXX-0044                      | 1K27N1          | VLK / JET / Jetta A5 2.5L | <b>Ex. 6</b> | Sedan     | 2.5        | 3,230             | 3,500     | 22.71                | 0.1049                     | 0.0194                         | 205/55 R16 | 4,516                        |
| L108RXX-0071                      | 1K27N3          | VLK / JET / Jetta A5 2.5L |              | Sedan     | 2.5        | 3,285             | 3,625     | 24.73                | 0.3654                     | 0.0170                         | 205/55 R16 | 21,503                       |
| L109RXX-0148                      | 1K27N3          | VLK / JET / Jetta A5 2.5L |              | Sedan     | 2.5        | 3,285             | 3,625     | 24.73                | 0.3654                     | 0.0170                         | 205/55 R16 | 21,503                       |
| L109RXX-0136                      | 1K27N1          | VLK / JET / Jetta A5 2.5L |              | Sedan     | 2.5        | 3,230             | 3,500     | 22.71                | 0.1049                     | 0.0194                         | 205/55 R16 | 4,516                        |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN          | Body Type | Trim Level | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|---------------------------|--------------|-----------|------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L108RXX-0044                      | 1K27N1          | VLK / JET / Jetta A5 2.5L | <b>Ex. 6</b> | Sedan     | 2.5        | 04 M5             | HRG               | 3.647      | 590 0001                        | 590 0018                        | 590 0043                         |
| L108RXX-0071                      | 1K27N3          | VLK / JET / Jetta A5 2.5L |              | Sedan     | 2.5        | L6                | HFU               | 3.504      | FTA                             | HWA                             | US6A                             |
| L108RXX-0136                      | 1K27N3          | VLK / JET / Jetta A5 2.5L |              | Sedan     | 2.5        | L6                | HFU               | 3.504      | FTA                             | HWA                             | US6A                             |
| L109RXX-0148                      | 1K27N1          | VLK / JET / Jetta A5 2.5L |              | Sedan     | 2.5        | 04 M5             | HRG               | 3.647      | 590 0001                        | 590 0018                        | 590 0043                         |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description | VIN | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|-------------------|-----|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L-108*, L-109* - all              | all             | all               | all | all       | all        | 55                     | 22                    | 14.53                    | 5.81                    | 110                           |

**To:** Lynn Sohacki/AA/USEPA/US@EPA; Bernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA[]

**Cc:** Ex. 7  
Ex. 7

**From:** Ex. 7

**Sent:** Wed 1/23/2008 10:34:11 PM

**Subject:** Test Parameters For EPA In-Use Surveillance Test Program - Engine Family 5VWXV02.5253 / 5th vehicle  
# TEST-PARAMETERS 5VWXV025253\_080123.xls

Ladies and Gentlemen,

Please find below the test information and parameters for the 5th vehicle (L108RXX-0127) to be tested within the actual EPA In-Use Surveillance Test Program - Eng. Fam. 5VWXV02.5253:

Lab: NVFEL Ann Arbor,  
Michigan  
Engine Family: 5VWXV02.5253  
Estimated Start Date: November 16, 2007  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-108 / L-109 (low mileage / high mileage)

- General Test Group Information:

-----  
Engine Fam.: 5VWXV02.5253  
Concept: 2.5L / I5 150 hp  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 150 hp  
Models in TG: VW Jetta A5 (2.5)  
EVAP Fam.: 5VWXR0110238  
EVAP Standard: C2  
# of sold vehicles in TG: 29,244

- General Vehicle Group Information:

-----  
Tank Capacity 100% [l] 55.0 [l]  
Tank Capacity 40% [l] 22.0 [l]  
Tank Capacity 100% [gal] 14.53 [gal]  
Tank Capacity 40% [gal] 5.81 [gal]  
Canister Working Cap. [g] 110  
Standard Tire Size 205/55 R16  
Axle Ratio 3.504 (L6/2) / 3.647  
(M5/2)  
Target road-load coef. 24.73 (F0) 0.3654 (F1)  
0.0170 (F2) - for L6/2  
22.71 (F0)  
0.1049 (F1) 0.0194 (F2) - for M5/2

- Model & VIN specific Test Parameters for the last four and the 5th vehicle: => see attached .xls spreadsheet

- VIN specific Information:

(5) L108RXX-0127 (2005 VW Jetta A5 (2.5)) -- vehicle inspection scheduled for 01/24/2008 (Thursday) at ~09:30

VIN:

**Ex. 6**

Make/Model: VLK / JET / Jetta A5 2.5L

Model Code: 1K27N1

Exterior Color: BLACK EXTERIOR

Prod Date: 05/18/2005

In Service Date: 12/30/2005

Engine#: BGP 038848

Vehicle Source: Mexico

In case of any questions or need of additional information, please don't hesitate to contact me.

Best regards,

**Ex. 7**

# Test Parameters For EPA In-Use Surveillance Test Program L-108 / L-109 (5VW XV02.5253)

Engine Fam.: 5VW XV02.5253  
Concept: 2.5L / I5 150 hp  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 150 hp  
Engine Code: BGP  
Models in TG: VW Jetta A5 (2.5)  
EVAP Fam.s in TG: 5VW XR0110238  
EVAP Standard: C2  
# of sold vehicles in TG: 29,244

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN   | Body Type | Trim Level | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|---------------------------|-------|-----------|------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L108RXX-0044                      | 1K27N1          | VLK / JET / Jetta A5 2.5L | Ex. 6 | Sedan     | 2.5        | 3,230             | 3,500     | 22.71                | 0.1049                     | 0.0194                         | 205/55 R16 | 4,516                        |
| L108RXX-0071                      | 1K27N3          | VLK / JET / Jetta A5 2.5L |       | Sedan     | 2.5        | 3,285             | 3,625     | 24.73                | 0.3654                     | 0.0170                         | 205/55 R16 | 21,503                       |
| L109RXX-0148                      | 1K27N3          | VLK / JET / Jetta A5 2.5L |       | Sedan     | 2.5        | 3,285             | 3,625     | 24.73                | 0.3654                     | 0.0170                         | 205/55 R16 | 21,503                       |
| L108RXX-0136                      | 1K27N1          | VLK / JET / Jetta A5 2.5L |       | Sedan     | 2.5        | 3,230             | 3,500     | 22.71                | 0.1049                     | 0.0194                         | 205/55 R16 | 4,516                        |
| L108RXX-0127                      | 1K27N1          | VLK / JET / Jetta A5 2.5L |       | Sedan     | 2.5        | 3,230             | 3,500     | 22.71                | 0.1049                     | 0.0194                         | 205/55 R16 | 4,516                        |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | Body Type | Trim Level | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|---------------------------|-----------|------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L108RXX-0044                      | 1K27N1          | VLK / JET / Jetta A5 2.5L | Sedan     | 2.5        | 04 M5             | HRG               | 3.647      | 590 0001                        | 590 0018                        | 590 0043                         |
| L108RXX-0071                      | 1K27N3          | VLK / JET / Jetta A5 2.5L | Sedan     | 2.5        | L6                | HFU               | 3.504      | FTA                             | HWA                             | US6A                             |
| L109RXX-0148                      | 1K27N3          | VLK / JET / Jetta A5 2.5L | Sedan     | 2.5        | L6                | HFU               | 3.504      | FTA                             | HWA                             | US6A                             |
| L108RXX-0136                      | 1K27N1          | VLK / JET / Jetta A5 2.5L | Sedan     | 2.5        | 04 M5             | HRG               | 3.647      | 590 0001                        | 590 0018                        | 590 0043                         |
| L108RXX-0127                      | 1K27N1          | VLK / JET / Jetta A5 2.5L | Sedan     | 2.5        | 04 M5             | HRG               | 3.647      | 590 0001                        | 590 0018                        | 590 0043                         |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|-------------------|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L-108*, L-109* - all              | all             | all               | all       | all        | 55                     | 22                    | 14.53                    | 5.81                    | 110                           |

**To:** Giedrius Ambrozaitis [gambrozaitis@autoalliance.org]; Allen Schaeffer (Diesel Tech Forum) [aschaeffer@dieselforum.org]; Alyssa Werthman (Ford Motor Company) [awertha@ford.com]; ndrew Kosiak [AKosiak@tuthill.com]; Anita Rajan (Mitsubishi Motors R&D of America) [anita.rajan@na.mitsubishi-motors.com]; Anna-Maria Schneider (Toyota Motor North America, Inc.) [Anna\_Schneider@tma.toyota.com]; tit Amin [atit.amin@exxonmobil.com]; Barbara Nocera (Mazda North American Operations) [bnocera@mazdausa.com]; rendan Foster [brendan@benecor.net]; Moughlor [camoughlor@ashland.com]; asimer Andary [candary@autoalliance.org]; hris Nevers/AA/USEPA/US@EPA; Christine Lambert (Ford Motor Company) [clamber9@ford.com]; Christine Lambert (Ford Motor Company) [clamber9@ford.com]; lifford Dean/DC/USEPA/US@EPA; D Wyeany [dwyeany@ashland.com]; Wyeany [dwyeany@ashland.com]; Dale Kardos (Dale Kardos & Associates, LLC) [dale.kardos@motorvehiclereg.com]; avid Kayes [davidkayes@freightline.com]; avid Shaw [dshaw@cleanemissionfluids.com]; ennis Smith [dennis.a.smith@ee.doe.gov]; Doug McGregor (BMW of North America, Inc.) [doug.mcgregor@bmwna.com]; Ed Kulik (Ford Motor Company) [ekulik@ford.com]; Edward Cohen (Honda North America, Inc.) [Edward\_Cohen@hna.honda.com]; Eric Schneider (Mercedes Benz) [eric.a.schneider@mbusa.com]; Lockwood [felockwoodashland@com.rtp.epa.gov]; rank Rutten [Frank.Rutten@shell.com]; Fred Sciance (General Motors Corporation) [fred.sciance@gm.com]; Croce [GCroce@chevron.com]; reg Dana [GDANA@autoalliance.org]; reg McAfee [greg.mcafee@chsinc.com]; Gregory Scott (Kelley Drye Collier Shannon) [GScott@KelleyDrye.com]; auke Braack [hauke.braack@exxonmobil.com]; Tepsa [itepsa@aol.com]; Ichiro Sakai (Honda) [Ichiro\_Sakai@ahm.honda.com]; Barr [jbarr@ryder.com]; Fellman [jfellman@nacsonline.com]; Suchecki [jsuchecki@emamail.org]; ackie Bell [jackie.bell@paccar.com]; ackie Yeager [jackie.m.yeager@cummins.com]; amie Song [jsong@meca.org]; ean Fellenberg [jfellenberg@sbcglobal.net]; ean Johnson [jjohnson@autoalliance.org]; im Spooner [jspooner@colonial-chemical.com]; oerg Debus [Joerg.J.Debus@shell.com]; John Cabaniss (Association of International Automobile Manufacturers) [jcabaniss@aiaa.org]; John Eichberger (National Assoc of Conv Stores) [jeichberger@nacsonline.com]; John Rugge (Subaru of America, Inc.) [jrugge@subaru.com]; Joseph Kaufman (ConocoPhillips) [joseph.w.kaufman@conocophillips.com]; ulie Becker [JBECKER@autoalliance.org]; Pnystrom [kpnystrom@agriliance.com]; arl Simon/DC/USEPA/US@EPA; Karl Tasik [karl.tasik@volvo.com]; arl Tasik [karl.tasik@volvo.com]; en Howden [ken.howden@ee.doe.gov]; Kevin Kokrda (Engine Manufacturers Association) [kkokrda@emamail.org]; Enrocco [lenrocco@hotmail.com]; ance Tunick [tunick@vsci.net]; arry Northup [larry.northup@aftermarket.org]; inc Wehrly/AA/USEPA/US@EPA; M Buczek [mbuczek@venturepointresearch.com]; Buczek [mbuczek@venturepointresearch.com]; arcel de Kort [marceldekort@greenchem-adblue.com]; ark Busch [mbusch@cleanemissionfluids.com]; Matthew Kevnick (Toyota Technical Center USA, Inc.) [matthew.kevnick@tema.toyota.com]; ichael Koss [michael\_koss@verizon.net]; Michael Potter (General Motors Corporation) [michael.a.potter@gm.com]; Mike Zammit (DaimlerChrysler Corporation) [mz10@dcx.com]; liver Baer [obaer@cleanemissionfluids.com]; wen Busch [owenbusch@earthlink.net]; atrick Kelly [kellyp@api.org]; atrick Lammers [Patrick.Lammers@univareurope.com]; atrik Klintbom [patrik.klintbom@volvo.com]; Rich Bell (Ford Motor Company) [rbell1@ford.com]; Richard Baker (Ford Motor Company) [rbaker8@ford.com]; Robert Babik (General Motors Corporation) [robert.babik@gm.com]; obert Fasnacht [robert.fasnacht@volvo.com]; obert Hagenaars [roberthagenaars@greenchem-adblue.com]; obert Jorgensen [robert.a.jorgensen@cummins.com]; Robert M. Clarke [robertmclarke@truckmfgs.org]; obert Rupert [robert.rupert@dot.gov]; ochelle Neal [RNeal@autoalliance.org]; osemay Perry [rosemary.perry@aftermarket.org]; oss Johnson [Ross.Johnson@yara.com]; yan Carroll [ryan.carroll@aftermarket.org]; Bowling [IMCEAEX- \_O=AUTO+20ALLIANCE\_OU=AAM\_cn=Recipients\_cn=SBowling@autoalliance.org]; teve Berry [steve.berry@volvo.com]; teve Douglas [SDOUGLAS@autoalliance.org]; Ex. 7 (Volkswagen of America, Inc.) [Ex. 7 @vw.com]; Columbus [tcolumbus@steptoe.com]; aylor Davis [davistaylor@johndeere.com]; Teri Kowalski (Toyota Technical Center USA, Inc.) [teri.Kowalski@tema.toyota.com]; erry Goff [goff\_tery\_a@cat.com]; zel Memed [memed.uzel@volvo.com]; ic Meloche [vic.meloche@detroitdiesel.com]; Walter Lewis (Porsche

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**From:** Giedrius Ambrozaitis

**Sent:** Thur 1/31/2008 8:22:46 PM

**Subject:** SCR Stakeholder Group -- Next meetings February 21 starting @ 10 am in Washington DC

[Diesel Emissions Conference 08 agenda 1.pdf](#)

[ATT00001.txt](#)

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[gambrozaitis@autoalliance.org](#)

[www.integer-research.com/conference](#)

[www.integer-research.com/conference](#)

[ole1.bmp](#)

1. This is a reminder notice that the next SCR Stakeholder Group meeting and the next DEF "Starburst"

Quality Subcommittee meeting will both be held on February 21 at the American Petroleum Institute offices (1220 L Street, NW Washington, DC 20005-4070), beginning at 10:00 AM EST. The call-in number will be 1-866-443-0059

**Non-Responsive** for both meetings. A working lunch will be provided.

The first meeting will be the DEF "Starburst" Quality Subcommittee and will start at 10:00 am EST.

The second meeting will be the SCR Stakeholder Group and will start at 12:15 pm EST (right after lunch).

For lunch headcount planning, please RSVP to Alicia Raymond of API (email: raymonda@api.org ) if you are planning to attend in person.

2. Integer Research (also FindAdBlue.com) requested that I circulate to the group an announcement of the Diesel Emissions Conference conference they are setting up in Brussels on June 11-12 2008 – please see attached email. Anyone interested in presenting or participating at the conference should contact Cindy Zhang [email: Cindy.Zhang@integer-research.com] directly.

=====

The SCR Stakeholder Group (formerly called the Urea Stakeholder Group) is made up of industries, organizations and companies interested in urea for mobile source applications.

Participants include:

- Government (US Department of Energy, EPA)
- Automotive and heavy-duty engine and truck manufacturer trade associations
- Fuel retailer and truck stop trade associations
- Oil companies
- Urea distributors

The main objectives of the SCR Stakeholder Group are:

To exchange information with US government and other potential urea stakeholders on the potential market and need for urea availability.

To consider effective education and outreach to consumers and commercial concerns about urea, its use and availability.

To engage potential providers of urea availability to determine the conditions necessary for provision of retail availability before a profitable market exists.

If you have any questions concerning the SCR Stakeholder Group or the meeting, please call me at (248) 357-4796.

Sincerely,

Giedrius Ambrozaitis  
Manager of Mobile Sources  
Alliance of Automobile Manufacturers  
Tel. (248) 357-4796  
email: gambrozaitis@autoalliance.org

Received: from edge01.autoalliance.org (10.1.1.25) by autoallpo.autoalliance.wdc (192.168.0.8) with Microsoft SMTP Server (TLS) id 8.1.240.5; Tue, 29 Jan 2008 11:50:19 -0500  
Received: from cluster-b.mailcontroller.altohiway.com (213.83.66.209) by edge01.autoalliance.org (10.1.1.25) with Microsoft SMTP Server (TLS) id 8.1.240.5; Tue, 29 Jan 2008 11:48:20 -0500  
Received: from integer-research.com (host-82-45-180-94.static.telewest.net [82.45.180.94]) by rly4b.mailcontroller.altohiway.com (MailController) with ESMTP id m0TGmBtl008946 for <gambrozaitis@autoalliance.org>; Tue, 29 Jan 2008 16:48:11 GMT  
From: Cindy Zhang <Cindy.Zhang@integer-research.com>  
To: Giedrius Ambrozaitis <gambrozaitis@autoalliance.org>  
Date: Tue, 29 Jan 2008 11:47:23 -0500  
Subject: 4th Diesel Emissions Conference (DEC) 08  
Message-ID: <5301D53581933344ACA57D322341EBA0487A35@irsbs.Integer-Research.local>  
Content-Type: multipart/mixed;  
boundary="\_007\_5301D53581933344ACA57D322341EBA0487A35irsbsIntegerResea\_"  
Content-Class: urn:content-classes:message  
Thread-Topic: 4th Diesel Emissions Conference (DEC) 08  
Thread-Index: Achen462QxtlaW26TM6eKE1tLjTbwD6gcLQ  
X-MS-Exchange-Organization-AuthAs: Anonymous  
X-MS-Exchange-Organization-AuthSource: edge01.autoalliance.org  
X-MS-Has-Attach: yes  
X-MS-Exchange-Organization-SenderIdResult: None  
X-MS-Exchange-Organization-SCL: 0  
X-MS-Exchange-Organization-PCL: 2  
X-MS-Exchange-Organization-PRD: integer-research.com  
X-MS-TNEF-Correlator:  
x-scanned-by: MailControl A-08-00-01 (www.mailcontrol.com) on 10.61.0.114  
received-spf: None (edge01.autoalliance.org: Cindy.Zhang@integer-research.com does not designate permitted sender hosts)  
MIME-Version: 1.0

The first email didn't come through right somehow. Below is the right one.

Dear Mr Ambrozaitis,

My name is Cindy Zhang and I work for the independent consulting & publishing company Integer Research. We are based in London and are organisers of the world renowned annual Diesel Emissions Conference (DEC). I am writing you regarding our new project in Europe and I am kindly asking you for your help and assistance.



As the world's biggest annual event in emission industry in the world, DEC has enjoyed continuous support from Daimler, Volvo, Iveco, DAF, BMW, Nissan Diesel, Scania, Tata Motors and many other major OEMs. Large fleet operators and regulators like the European Commission and the US EPA have also been pledging their support to the conferences. Every year the conference draws close to 300 delegates from all over the world, many of whom are board level executives. You can find more information of our current events on our website [www.integer-research.com/conference](http://www.integer-research.com/conference).

The next Diesel Emissions Conference for Europe - the 4th hosted by Integer since 2005 - will be held on 11th and 12th June 2008 at the Sheraton Brussels Hotel & Towers in Brussels, Belgium. In 2008 the conference location returns to Brussels, where it was held in 2005, to mark the release of the Euro 6 standard from the European Commission.

One of the main themes of next year's conference will be the commercial impact of the latest emissions standards on diesel truck manufacturers and emissions control equipment suppliers. The conference will combine top-level strategy presentations with case studies and panel discussions from the businesses and authorities that will continue to shape the future of diesel emissions reduction.

I would like to seek your help on forming the below highlighted slots with presentation or panel discussion. I noticed the members of SCR group holder group are excellent candidates to be our privileged speakers and panellist. I'd be really grateful to receive your kind suggestion on the whom to contact for presenting the above slots.

Session 1     Keynote session

09:20 – 10:00   Grand Opening – Carbon and cleaner diesel: Global OEMs in search of efficiency

CEO or Board of Directors from OEM

Session 6     The future of the low-emissions Diesel market

11:00 – 11:40   Diesel Passenger car / Light Duty market development in the USA: Diesel v. hybrid

Yourself? Any suggestion?

We have got confirmed from the below speakers for the upcoming conference:

- Arno Nolte, Director, Future Emissions, Daimler AG
- Graham Hoare, Executive Director, Powertrain Engineering Ford of Europe
- Bruno Chazallete, Vice President Fuel and soft offer strategic planning, Renault Truck
- Prof Edward Jobson, Environmental Director, Volvo Bus Corporation, Volvo AB
- Administrator from Automotive Unit – DG Environment, European Commission
- Dr Thomas Schlick, Managing Director, German Association of the automotive Industry (VDA)
- Barry W. Lonsdale, President, Terra Environmental Technologies, Terra Industries Inc.
- Dr Teun C.J. de Bruijn, President and CEO, GreenChem Holding B.V.

And many more...

We have drafted an agenda for the conference in attached for your perusal. I would be grateful to learn your comments about it.

I'll catch up with you tomorrow with a call and I am looking forward to receiving your valuable feedbacks.

<<Diesel Emissions Conference 08 agenda 1.pdf>>

Yours sincerely,

Cindy Zhang

Events Manager

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[www.integer-research.com/conference](http://www.integer-research.com/conference)

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# Diesel Emissions Conference 08

Sheraton Brussels Hotel & Towers, Brussels, Belgium

11-13 June 2008

## Programme

| 11 June          |  |
|------------------|--|
| <b>Session 1</b> | <b>Keynote session</b>   |
| 09:00 – 09:20    | Introduction by Integer Research Ltd   |
| 09:20 – 10:00    | Grand Opening – Carbon and cleaner diesel: Global OEMs in search of efficiency   |
| 10:00 – 10:40    | <b>Keynote Presentation – Improving air quality in Europe</b><br><i>Administrator from Automotive Unit – DG Environment, European Commission</i>   |
| 10:40 – 11:20    | Networking break in the exhibition area  |
| <b>Session 2</b> | <b>Diesel Powertrain Strategy</b>  |
| 11:20 – 12:00    | The market for low emission diesel vehicles in Europe<br><i>Senior Director from Daimler</i>   |
| 12:00 – 12:40    | <b>How “120g/km by 2012” can be achieved</b><br>Graham Hoare, Executive Director<br><b>Powertrain Engineering Ford of Europe</b>   |
| 12:40 – 14:30    | Lunch in the exhibition area   |
| <b>Session 3</b> | <b>Advanced diesel emission reduction technology</b>   |
| 14:30 – 15:00    | <b>Diesel emission control evolution towards Euro 5 and Euro 6 limits</b><br><i>Pierfranco Ciselli, Aftertreatment &amp; Mechanical Systems Director</i><br><b>Product Engineering - Emissions, FIAT POWERTRAIN TECHNOLOGIES SPA</b> |
| 15:00 – 15:30    | <b>Meet future DD/NonRoad emission standards : DOC/DPF/SCR technologies for EU VI and Tier IV</b><br><i>Andreas Geisselmann, Ingo Lappas, Wolfgang Schneider, Lothar Mussmann, Wilfried Müller</i><br><b>Umicore AG &amp; Co. KG</b> |
| 15:30 – 16:00    | Post-NOx control<br><i>Senior Director from Bosch</i>  |
| 16:00 – 16:40    | Networking break in the exhibition area  |
| <b>Session 4</b> | <b>AdBlue &amp; Diesel Emission Fluid</b>  |
| 16:40 – 17:10    | <b>The Emerging North American Diesel Emission Fluid Market</b><br><i>Barry W. Lonsdale, President</i><br><b>Terra Environmental Technologies, Terra Industries Inc.</b>   |
| 17:10 – 17:40    | <b>Urea supply and quality assurance in Europe</b><br><i>Dr Teun C.J. de Bruijn, President and CEO</i><br><b>GreenChem Holding B.V.</b>  |
| 17:50 – 20:00    | <b>Drink reception</b>   |

# Diesel Emissions Conference 08

Sheraton Brussels Hotel & Towers, Brussels, Belgium  
11-13 June 2008

| 12 June          |  |
|------------------|--|
| <b>Session 5</b> | <b>Market development and on-the-road experience</b>   |
| 09:00 – 09:10    | Chairman's Introduction  |
| 09:10 – 09:40    | <b>Euro V &amp; VI bus and coach market development in Europe</b><br>Prof Edward Jobson, Environmental Director, Volvo Bus Corporation<br><b>Volvo AB</b>                                |
| 09:40 – 10:10    | Panel discussion: Euro V truck fleet operations  |
| 10:20 – 11:00    | Networking break in the exhibition area  |
| <b>Session 6</b> | <b>The future of the low-emissions Diesel market</b>   |
| 11:00 – 11:40    | Diesel Passenger car / Light Duty market development in the USA: Diesel v. hybrid  |
| 11:40 – 12:20    | The impact of Low Emissions Zones on the truck and bus market in Europe  |
| 12:20 – 13:00    | <b>The impact of carbon emissions reduction requirements on European car markets</b><br>Bruno Chazalotte, Vice President Fuel and soft offer strategic planning<br><b>Renault Trucks</b> |
| 13:00 – 14:30    | Lunch in the exhibition area   |
| <b>Session 7</b> | <b>Diesel fuels &amp; lubricants</b>   |
| 14:30 – 15:00    | Biodiesel and carbon reduction<br><i>Senior Director from Shell</i>  |
| 15:00 – 15:30    | <b>Lubricants for Euro V Vehicles</b><br>Paul Kerwin, Regional Business Manager (Heavy Duty Engine Oils)<br><b>Lubrizol Limited</b>  |
| 15:30 -16:00     | <b>Closing Keynote: Incentives, fuel savings &amp; biofuels</b><br><i>Dr Thomas Schlick, Managing Director</i><br><b>German Association of the automotive Industry (VDA)</b>             |
| 16:10            | Conference ends  |

# Diesel Emissions Conference 08

## AdBlue Workshop

Sheraton Brussels Hotel & Towers, Brussels, Belgium

11-13 June 2008

| 13 June          |   |
|------------------|---|
| <b>Session 1</b> | <b>AdBlue Legislation and the Big Picture</b>   |
| 9.00             | Opening Keynote. What are the strategic lessons learnt from the early roll-out of AdBlue supply and where are we headed?<br>Invitation to: ENI/Total/BP   |
| 9.30             | Roundtable Group Discussion. Discussing ISO 22241 Standards on storage, safety and quality assurance and how they will impact on your AdBlue retail business  |
| 10.00            | <i>Networking activities and morning refreshments</i>   |
| <b>Session 2</b> | <b>Forecourt and Homebase Investment in AdBlue</b>  |
| 10.30            | Case study. Developing AdBlue facilities in line with projected growth in demand<br>Invitation to: Patrick Schnell, Head of Sustainable Development and New Energies, Total   |
| 11.00            | Project management case study. Installing AdBlue supply at one site. Pre-installation expectations and post installation realities<br>Invitation to: Ulrich Gilles, International Diesel Service Manager, Europe, Q8                  |
| 11.30            | Case study. No place like home – Business benefits of investing in an AdBlue supply facility at your home depot<br>Invitation to: DHL/Deutsche Post/De Lijn   |
| 12.00            | Roundtable group discussion. Discussing the key factors to consider when selecting an AdBlue supplier   |
| 12.30            | <i>Networking lunch and exhibition viewing</i>  |
| <b>Session 3</b> | <b>AdBlue Technology Focus</b>  |
| 14.00            | Making the right investment choices in storage, pump and meter equipment for AdBlue refilling at the forecourt<br>Invitation to: Walter Boheme, Innovation Manager, OMV   |
| 14.30            | Roundtable group discussion. Identifying and overcoming the dispensing challenges associated with AdBlue  |
| 14.50            | Roundtable group discussion. What are the latest technology developments that can really improve efficiency and customer service on the forecourt and at the depot?<br>- Billing and FOS Integration, telematics, storage, dispensers |
| 15.10            | Summary panel discussion – A panel of speakers will highlight the concluding points from each discussion group  |

|                  |   |
|------------------|---|
| <b>15.30</b>     | <i>Networking activities and afternoon refreshments</i>   |
| <b>Session 4</b> | <b>The AdBlue Crystal Ball – Euro V1 and Beyond</b>   |
| <b>16.00</b>     | <b>Roundtable group discussion. Drawing the future roadmap for AdBlue market development in Europe</b>  |
| <b>16.20</b>     | <b>Roundtable group discussion. What will be the major challenges facing AdBlue retailers and suppliers in building a sustainable supply infrastructure over the next 5 years.</b>    |
| <b>16.40</b>     | <b>Summary panel discussion – A panel of speakers will highlight the concluding points from each discussion group</b>   |
| <b>17.00</b>     | <b>Closing Keynote Panel discussion: Future insights. What will Euro V1 mean for Adblue sales/volume, cost and price?<br/>Invitation to: BP/Exxon Mobil/European Commission /Yara</b> |
| <b>17.30</b>     | <b>Workshop ends</b>  |

**To:** "Giedrius Ambrozaitis" [gambrozaitis@autoalliance.org]; Allen Schaeffer (Diesel Tech Forum) [aschaeffer@dieselforum.org]; Alyssa Werthman (Ford Motor Company) [awertha@ford.com]; Andrew Kosiak [AKosiak@tuthill.com]; Anita Rajan (Mitsubishi Motors R&D of America) [anita.rajan@na.mitsubishi-motors.com]; Anna-Maria Schneider (Toyota Motor North America, Inc.) [Anna\_Schneider@tma.toyota.com]; Atit Amin [atit.amin@exxonmobil.com]; Barbara Nocera (Mazda North American Operations) [bnocera@mazdausa.com]; Brendan Foster [brendan@benecor.net]; C Moughlor [camoughlor@ashland.com]; Casimer Andary [candary@autoalliance.org]; hris Nevers/AA/USEPA/US@EPA; Christine Lambert (Ford Motor Company) [clamber9@ford.com]; Christine Lambert (Ford Motor Company) [clamber9@ford.com]; lifford Dean/DC/USEPA/US@EPA; D Wyeany [dwyeany@ashland.com]; D Wyeany [dwyeany@ashland.com]; Dale Kardos (Dale Kardos & Associates, LLC) [dale.kardos@motorvehiclereg.com]; David Kayes [davidkayes@freightline.com]; David Shaw [dshaw@cleanemissionfluids.com]; Dennis Smith [dennis.a.smith@ee.doe.gov]; Doug McGregor (BMW of North America, Inc.) [doug.mcgregor@bmwna.com]; Ed Kulik (Ford Motor Company) [ekulik@ford.com]; Edward Cohen (Honda North America, Inc.) [Edward\_Cohen@hna.honda.com]; Eric Schneider (Mercedes Benz) [eric.a.schneider@mbusa.com]; F Lockwood [felockwoodashland@com.rtp.epa.gov]; Frank Rutten [Frank.Rutten@shell.com]; Fred Sciance (General Motors Corporation) [fred.sciance@gm.com]; G Croce [GCroce@chevron.com]; Greg Dana [GDANA@autoalliance.org]; Greg McAfee [greg.mcafee@chsinc.com]; Gregory Scott (Kelley Drye Collier Shannon) [GScott@KelleyDrye.com]; Hauke Braack [hauke.braack@exxonmobil.com]; I Tepsa [itepsa@aol.com]; Ichiro Sakai (Honda) [Ichiro\_Sakai@ahm.honda.com]; J Barr [jbarr@ryder.com]; J Fellman [jfellman@nacsonline.com]; J Suchecki [jsuchecki@emamail.org]; Jackie Bell [jackie.bell@paccar.com]; Jackie Yeager [jackie.m.yeager@cummins.com]; Jamie Song [jsong@meca.org]; Jean Fellenberg [jfellenberg@sbcglobal.net]; Jean Johnson [jjohnson@autoalliance.org]; Jim Spooner [jspooner@colonial-chemical.com]; Joerg Debus [Joerg.J.Debus@shell.com]; John Cabaniss (Association of International Automobile Manufacturers) [jcabaniss@aiaa.org]; John Eichberger (National Assoc of Conv Stores) [jeichberger@nacsonline.com]; John Ruge (Subaru of America, Inc.) [jruge@subaru.com]; Joseph Kaufman (ConocoPhillips) [joseph.w.kaufman@conocophillips.com]; Julie Becker [JBECKER@autoalliance.org]; K Pnystrom [kpnystrom@agriliance.com]; arl Simon/DC/USEPA/US@EPA; Karl Tasik [karl.tasik@volvo.com]; Karl Tasik [karl.tasik@volvo.com]; Ken Howden [ken.howden@ee.doe.gov]; Kevin Kokrda (Engine Manufacturers Association) [kkokrda@emamail.org]; L Enrocco [lenrocco@hotmail.com]; Lance Tunick [ltunick@vsci.net]; Larry Northup [larry.northup@aftermarket.org]; inc Wehrly/AA/USEPA/US@EPA; M Buczek [mbuczek@venturepointresearch.com]; M Buczek [mbuczek@venturepointresearch.com]; Marcel de Kort [marceldekort@greenchem-adblue.com]; Mark Busch [mbusch@cleanemissionfluids.com]; Matthew Kevnick (Toyota Technical Center USA, Inc.) [matthew.kevnick@tema.toyota.com]; Michael Koss [michael\_koss@verizon.net]; Michael Potter (General Motors Corporation) [michael.a.potter@gm.com]; Mike Zammit (DaimlerChrysler Corporation) [mz10@dcx.com]; Oliver Baer [obaer@cleanemissionfluids.com]; Owen Busch [owenbusch@earthlink.net]; Patrick Kelly [kellyp@api.org]; Patrick Lammers [Patrick.Lammers@univareurope.com]; Patrik Klintbom [patrik.klintbom@volvo.com]; Rich Bell (Ford Motor Company) [rbell1@ford.com]; Richard Baker (Ford Motor Company) [rbaker8@ford.com]; Robert Babik (General Motors Corporation) [robert.babik@gm.com]; Robert Fasnacht [robert.fasnacht@volvo.com]; Robert Hagenaars [roberthagenaars@greenchem-adblue.com]; Robert Jorgensen [robert.a.jorgensen@cummins.com]; Robert M. Clarke [robertmclarke@truckmfgs.org]; Robert Rupert [robert.rupert@dot.gov]; Rochelle Neal [RNeal@autoalliance.org]; Rosemary Perry [rosemary.perry@aftermarket.org]; Ross Johnson [Ross.Johnson@yara.com]; Ryan Carroll [ryan.carroll@aftermarket.org]; S Bowling [IMCEAEX\_O=AUTO+20ALLIANCE\_OU=AAM\_cn=Recipients\_cn=SBowling@autoalliance.org]; Steve Berry [steve.berry@volvo.com]; Steve Douglas [SDOUGLAS@autoalliance.org]; Ex. 7 (Volkswagen of America, Inc.) Ex. 7 @vw.com; T Columbus [tcolumbus@steptoe.com]; Taylor Davis [davistaylor@johndeere.com]; Teri Kowalski (Toyota Technical Center USA, Inc.) [teri.kowalski@tema.toyota.com]; Terry Goff

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**From:** "Thomas, Donald"  
**Sent:** Tue 2/5/2008 4:10:42 PM  
**Subject:** Info for the STARBURST Committee Group  
[Galbraith ISO22241-2 Quote.pdf](#)  
[raymonda@api.org](mailto:raymonda@api.org)  
[gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)

To the Starburst Quality Committee:



I have received a quotation from an independent Contract Laboratory to perform the tests defined under ISO22241-2 that are required to certify AUS32 DEF.

Galbraith Analytical (Knoxville, TN) has provided me the Attached Quotation:

To summarize, they are quoting a price of \$2,289/sample to perform all the required analyses. Note this price DOES NOT include aldehydes as they are still working to define that cost. I've been transmitting them info on analytical methods.

Some discounts would apply to multiple samples being submitted and for multiple metals being determined on a single sample.

Galbraith is FDA registered, with numerous quality registrations and memberships. They are reputable and represent what I believe is a reasonable example of a 3rd party audit lab.

Donald Thomas  
Manager of Technical Service and Quality Programs  
Terra Industries Inc.  
4612 Hwy 49 East  
Yazoo City, MS 39194-0388

Office: (662)-751-2641  
Fax: (712)-294-1093  
Mobile: (662)-571-4250  
dthomas@terraindustries.com

Subject: SCR Stakeholder Group -- Next meetings February 21 starting @ 10 am in Washington DC

1. This is a reminder notice that the next SCR Stakeholder Group meeting and the next DEF "Starburst" Quality Subcommittee meeting will both be held on February 21 at the American Petroleum Institute offices (1220 L Street, NW Washington, DC 20005-4070), beginning at 10:00 AM EST. The call-in number will be 1-866-443-0059 with **Non-Responsive** for both meetings. A working lunch will be provided.

The first meeting will be the DEF "Starburst" Quality Subcommittee and will start at 10:00 am EST.

The second meeting will be the SCR Stakeholder Group and will start at 12:15 pm EST (right after lunch).

For lunch headcount planning, please RSVP to Alicia Raymond of API (email: raymonda@api.org) if you are planning to attend in person.

2. Integer Research (also FindAdBlue.com) requested that I circulate to the group an announcement of the Diesel Emissions Conference conference they are setting up in Brussels on June 11-12 2008 – please see attached email. Anyone interested in presenting or participating at the conference should contact Cindy Zhang [email: Cindy.Zhang@integer-research.com] directly.

=====

The SCR Stakeholder Group (formerly called the Urea Stakeholder Group) is made up of industries, organizations and companies interested in urea for mobile source applications.

Participants include:

- Government (US Department of Energy, EPA)
- Automotive and heavy-duty engine and truck manufacturer trade associations
- Fuel retailer and truck stop trade associations
- Oil companies
- Urea distributors

The main objectives of the SCR Stakeholder Group are:

To exchange information with US government and other potential urea stakeholders on the potential market and need for urea availability.

To consider effective education and outreach to consumers and commercial concerns about urea, its use and availability.

To engage potential providers of urea availability to determine the conditions necessary for provision of retail availability before a profitable market exists.

If you have any questions concerning the SCR Stakeholder Group or the meeting, please call me at (248) 357-4796.

Sincerely,

Giedrius Ambrozaitis  
Manager of Mobile Sources  
Alliance of Automobile Manufacturers  
Tel. (248) 357-4796  
email: [gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)

To: [REDACTED] Ex. 7 N=Linc  
Wehrly/OU=AA/O=USEPA/C=US@EPA]  
Cc: [REDACTED] Ex. 7  
BECKER@autoalliance.org; ken.howden@ee.doe.gov; [REDACTED] Ex. 7  
en.howden@ee.doe.gov; [REDACTED] Ex. 7  
[REDACTED] Ex. 7  
From: CN=Arman Tanman/OU=DC/O=USEPA/C=US  
Sent: Mon 2/11/2008 2:01:08 PM  
Subject: Re: FW: Trying to get organizers for the SAE Enviro/Energy Sessions  
SAE 2008 Enviro+Enrgy Sessions & Organizers.doc

Hi [REDACTED] Ex. 7

The EPA person for the Light Duty Diesel Session will be Linc Wehrly, his info is below:

Light-Duty Clean Diesel Technologies- Tuesday, May 13 @ 9:15am

This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines. Vehicle manufactures will reveal their plans on introducing diesel engines to the U.S. market.

Organizers:

EPA: Linc Wehrly- USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road ,  
Mail Code: AALDVG , Ann Arbor, MI 48105, Tel: 734-214-4917 Email: wehrly.linc@epa.gov

DOE: Ken Howden, DOE, email: ken.howden@ee.doe.gov

Industry: [REDACTED] Ex. 7

Thanks to all for your help in organizing this session,  
Arman

[REDACTED] Ex. 7  
02/08/2008 12:47 PM  
To Arman Tanman/DC/USEPA/US@EPA  
cc <JBECKER@autoalliance.org>, <ken.howden@ee.doe.gov>, [REDACTED] Ex. 7  
[REDACTED] Ex. 7  
Subject FW: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Arman,

I will be the Industry Representative for the Light Duty Diesel Session  
at the upcoming SAE Government Industry meeting (9:30am, 5/13).

I am already aware of interest on the part of at least one of my VW  
colleagues who wants to make a presentation. I have copied Ken Howden  
from DOE (DOE Gov. co-chair), Julie Becker from the Auto Alliance, but I  
do not have an e-mail address for Linc Wehrly (EPA Gov. co-chair). If  
you could provide me with Linc's e-mail address, I would greatly  
appreciate it. I will contact my co-chairs for this session and begin

to put together the list of presentations.

If you are aware of any industry representatives who have expressed an interest to make a presentation at this session, please let me know.

Best regards,

Ex. 7

-----Original Message-----

From: Ex. 7

Sent: Thursday, February 07, 2008 10:50 AM

To: 'Tanman.Arman@epamail.epa.gov'

Cc: Ex. 7

Ex. 7

Subject: RE: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Arman,

You are correct that I had volunteered to get you an industry session organizer for the 9:30am Light-Duty Diesel Technologies session on Tuesday, May 13th, during the SAE Government Industry Meeting . I am checking with my VW colleagues in Michigan and they will get back to me tomorrow with a definite answer. If they are not available to chair the session, then I will accept the responsibility myself. I will have a name for you by COB tomorrow.

I know that my VW colleagues have expressed an interest to give one or two presentations for the session. Do you know if Linc Wehrly - USEPA National Vehicle and Fuel Emissions Laboratory/OAR or Ken Howden - DOE have heard from any potential presenters for the government side?

I also know that Julie Becker from the Alliance sent out a request for participation in the Environmental Sessions at G/I but I'm not sure if she received any response in the Light Duty Diesel area.

Best regards,

Ex. 7

Light Duty Clean Diesel Technologies

9:30 a.m.

This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines.

Vehicle manufactures will reveal their plans on introducing diesel

engines to the U.S. market.

-----Original Message-----

From: Tanman.Arman@epamail.epa.gov [mailto:Tanman.Arman@epamail.epa.gov]

Sent: Thursday, February 07, 2008 10:09 AM

To: Ex. 7

Subject: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Ex. 7

We are still trying to get all the organizers for the 10 session we have identified. We have most of the industry organizers identified and at least one organizer for the government side. I am working with Ken Howden in DOE for some of the other gov. organizers. One we are missing an industry organizer for is the Light-Duty Clean Diesel Technologies session. I think you had volunteered to be the industry organizer, but I can't remember. Are you still interested or can you recommend someone?

Thanks,

Arman

(See attached file: SAE 2008 Evnviro+Enrgy Sessions & Organizers.doc)

Arman Tanman

Mechanical/Environmental Engineer

U.S. Environmental Protection Agency

Office of Transportation and Air Quality Compliance and Innovative Strategies Division (6405J) 1200 Pennsylvania Ave., N.W.

Washington, D.C. 20460

(202) 343-9326 phone

(202) 343-2803 fax

Physical location/ Courier Mailing Address:

1310 L Street, N.W. (6405J)

Washington, D.C. 20005

## Environment & Energy Topics for 2008 SAE G/I meeting

### 1. Fuel Economy, CO<sub>2</sub>, CAFE and higher fuel prices -- The Perfect Storm

This session will explore how the changing regulatory landscape is affecting the automotive industry and what it may mean to future vehicles. Speakers from industry, government, academia and NGOs will attempt to unravel this complex challenge. Topics will include: perspectives on impact of federal and state fuel economy and GHG regulations, recent changes in consumer vehicle preference, what we can learn from Europe and Asia, and where fuel prices are headed.

Organizers: Industry GM - [keith.cole@gm.com](mailto:keith.cole@gm.com), 202-775-5040,

EPA- Jeff Alson, USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Ann Arbor, MI 48105, Tel: 734-214-4296 Email: [alson.jeff@epa.gov](mailto:alson.jeff@epa.gov)

DOT

### 2. Climate Change and Impacts on the Transportation Sector

This session will provide the audience with an update on the latest climate research and its implication for the transportation sector. Speakers, from a variety of backgrounds, will discuss the latest findings on climatic trends and the role of greenhouse gas emissions. The topics will cover potential impacts of climate change on the transportation infrastructure (e.g., tunnels, bridges, and roadways) and also discuss the impact of climate change on safety operations and freight movement.

Organizers: Industry, DOE,

EPA- Simon Mui , USEPA Headquarters, Ariel Rios Building, 1200 Pennsylvania Avenue, N. W.

Mail Code: 6401A, Washington, DC 20460 Tel: 202-564-1980, email: [mui.simon@epa.gov](mailto:mui.simon@epa.gov)

DOT- Michael Savonis, DOT, email: [Michael.savonis@fhwa.dot.gov](mailto:Michael.savonis@fhwa.dot.gov)

### 3. Future Fuels I

Session I will address the upstream issues for sources of new feedstocks (i.e. GTL, biofuels, etc.) for both liquid and gaseous fuels, including the technical and economic hurdles to be overcome. New fuels derived from alternative sources of petroleum and renewable bio-feedstocks hold the solutions to our nation's need for energy security and global sustainability. Invited experts will provide their insights on these alternative fuels' effects on engine compatibility, efficiency and emissions and their outlook for near-term market penetration.

Organizers: RFA, NBB,

DOE- Glenn Keller email: [gkeller@anl.gov](mailto:gkeller@anl.gov)

EPA- Tony Fernandez, USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail

Code: AALDOC , Ann Arbor, MI 48105, Tel: 734-214-4431 Email: [fernandez.antonio@epa.gov](mailto:fernandez.antonio@epa.gov)

API- Patrick Kelley, API, email: [kellyp@api.org](mailto:kellyp@api.org)

### 4. Future Fuels II

Session II will focus on the myriad of downstream deployment issues involved with the widespread distribution of alternative fuels. The discussions will investigate the infrastructure problems and potential solutions for storage/dispensing, the transportation logistics, and their economic impacts.

Organizers: NPRA, DOE

EPA- Jeff Herzog, USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail Code:

AAFC , Ann Arbor, MI 48105, Tel: 734-214-4227 Email: [herzog.jeff@epa.gov](mailto:herzog.jeff@epa.gov)

API- Patrick Kelley, API, email: [kellyp@api.org](mailto:kellyp@api.org)

DOE- Glenn Keller email: [gkeller@anl.gov](mailto:gkeller@anl.gov)

### 5. Investigating Hybrid Vehicle Technologies Session I:

Hybrids have caught the attention of consumers, media, businesses and government leaders alike. Offering optimized fuel efficiency and performance, hybrid technologies possess unique potential to transform the transportation sector. Furthermore, plug-in hybrids and battery-powered electric vehicles can offer zero-emission capability and could assist in sustaining the nation's electricity grid. The discussion will examine the different applications for advanced hybrid powertrains and plug-in hybrid vehicles providing an overview of the newest electric and hydraulic drive solutions. This session will bring together vehicle manufacturers, technology developers, fleet operators, and policymakers to discuss the role of electric and hydraulic drive in the light-duty markets.

Organizers: Industry- Toyota, Justin Ward, [justin.ward@tema.toyota.com](mailto:justin.ward@tema.toyota.com), 310-787-5804,

DOE- (FreedomCar), DOT(NHTSA),

EPA: May use same EPA organizer as session II below

#### **6. Investigating Hybrid Vehicle Component Technologies Session II:**

What's the magic under the hood that can enable fuel economy figures of 200+ MPG? This session will provide some of the answers to that question by covering the advances taking place in hybrid vehicle component technologies including batteries, alternative energy storage devices, motors, power electronics and controls. Discussions will expand on current and future trends in "hybridization" technologies and deployment opportunities, and industry's leaders' views on where the government can accelerate the move toward sustainable transportation.

Organizers: Industry- may use same organizer from session I above.

DOE- (FreedomCar):?

EPA: Ruonan Sun- USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail Code: AATDG , Ann Arbor, MI 48105, Tel: 734-214-4917 Email: [sun.ruonan@epa.gov](mailto:sun.ruonan@epa.gov)

#### **7. Advanced Powertrain Technologies-**

Politics, economics and fluctuating fuel prices are changing consumers' expectations about fuel economy. Alternative energy sources such as fuel cells and other advanced powertrains may bring changes that can help give customers what they want. This panel will explore currently available efficiency improvement in the engine, transmission, and accessories of a vehicle and what's on the horizon and its impact on the industry.

Organizers: DOE

EPA: Matt Brusstar- USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail Code: AATDG , Ann Arbor, MI 48105, Tel: 734-214-4791 Email: [brusstar.matt@epa.gov](mailto:brusstar.matt@epa.gov)

Industry: Thomas C. Baloga , BMW of North America, LLC , Vice President, Engineering-US

Phone: (201) 573-2071 Fax: (201) 573-7831 E-mail: [tom.baloga@bmwna.com](mailto:tom.baloga@bmwna.com)

#### **8. Light-Duty Clean Diesel Technologies-**

This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines. Vehicle manufactures will reveal their plans on introducing diesel engines to the U.S. market.

Organizers:

EPA: Linc Wehrly- USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail Code: AALDVG , Ann Arbor, MI 48105, Tel: 734-214-4917 Email: [wehrly.linc@epa.gov](mailto:wehrly.linc@epa.gov)

DOE: Ken Howden, DOE, email: [ken.howden@ee.doe.gov](mailto:ken.howden@ee.doe.gov)

Industry: Lou?

#### **9. Heavy-Duty Clean Diesel Technologies for GHG control-**

This session will query the engine manufacturers, fuel manufactures and government entities on the current status of the industry and how technologies are performing and progressing. Technologies will include advanced powertrain technologies, aerodynamics, class 8 highway hybrids, idle reduction and other technologies to reduce green house gases. Retrofit technologies may also be explored for the legacy fleet.

Organizers:

EPA- Angela Cullen, USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road, Ann Arbor, MI 48105, Tel: 734-214-4419 Email: [cullen.angela@epa.gov](mailto:cullen.angela@epa.gov)

Industry- Allen Schaeffer, Diesel Technology Forum, email: [aschaeffer@dieSELFforum.org](mailto:aschaeffer@dieSELFforum.org)

DOE (21<sup>st</sup> Century truck): ?

#### **10. HP vs. Fuel efficiency and Safety-**

Recent concerns about global warming and energy independence have led to calls for more fuel efficient vehicles. However, the increased popularity of SUVs and pickups for personal transportation means that more people are driving less fuel efficient vehicles. Plus, new vehicles of all types are available with more powerful engines than ever before and many states have raised speed limits; two more trends increasing fuel consumption. What are the safety implications of higher travel speeds and more powerful vehicle engines? To what extent are more powerful engines and higher travel speeds in conflict with calls for fuel economy? This session will explore the inter-relationships among these issues and the extent to which technology can meet the sometimes conflicting needs of a modern transportation system.

Organizers:

Insurance Institute for Highway Safety: David Zuby, Email: [DZuby@iihs.org](mailto:DZuby@iihs.org)

EPA: Allen Duncan- USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail Code: AATDG , Ann Arbor, MI 48105, Tel: 734-214-4273 Email: [duncan.allen@epa.gov](mailto:duncan.allen@epa.gov)

Industry, NHTSA,

**To:** Norbert.Krause@VW.com[]  
**Cc:** CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Lynn Sohacki/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Lynn Sohacki/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Lynn Sohacki/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]  
**From:** CN=Tom Ball/OU=AA/O=USEPA/C=US  
**Sent:** Fri 2/15/2008 8:23:56 PM  
**Subject:** Ex. 4 - CBI and ex. 7

Hello Norbert. Its been a while since we discussed the issue of the Ex. 4 - CBI and Ex. 7. We have had discussions here, and have taken into account the data VW generated at the West Lake lab in California, as well as information received from CARB regarding the inspection they conducted of that lab. Given that there seemed to be some issues with the West Lake Lab sampling system, specifically the use of a 133-inch long convoluted exhaust tube, we still regard the results obtained at NVFEL in September of 2007 as valid. Our plan is to proceed with a confirmatory test class for these vehicles in the near future, unless VW would like to discuss remedy options now. Let me know if you want to discuss. I will be on travel next week but returning to the office on February 25th.

Tom



**To:** Giedrius Ambrozaitis [gambrozaitis@autoalliance.org]; Allen Schaeffer (Diesel Tech Forum)" [IMCEAEX-  
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**From:** Giedrius Ambrozaitis  
**Sent:** Fri 2/15/2008 9:23:16 PM  
**Subject:** SCR Stakeholder Group -- Next meetings February 21 starting @ 10 am in Washington DC  
[DEF Starburst Quality Program Subcommittee SCR Stakeholder Mtg agendas February 21 2008.doc](#)  
[Minutes SCR Urea stakeholders workgroup - January 9 2008.doc](#)  
[Minutes SCR Urea stakeholders workgroup - November 29 2007.doc](#)  
[SCR Stakeholder group email list - Feb 2008.xls](#)  
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[gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)

This is a reminder notice that the next SCR Stakeholder Group meeting and the next DEF "Starburst" Quality Subcommittee meeting will both be held on February 21 at the American Petroleum Institute offices (1220 L Street, NW Washington, DC 20005-4070), beginning at 10:00 AM EST. The call-in number will be 1-866-443-0059. **Non-Responsive** for both meetings. A working lunch will be provided.

The first meeting will be the DEF "Starburst" Quality Subcommittee and will start at 10:00 am EST.

The second meeting will be the SCR Stakeholder Group and will start at 12:15 pm EST (right after lunch).

For lunch headcount planning, please RSVP to Alicia Raymond of API (email: raymonda@api.org ) if you are planning to attend in person.

Attached please find the agendas for the February 21 meetings, the draft minutes from the last meeting on January 9, the corrected minutes from the November 29th meeting and the excel list of participants.

=====

The SCR Stakeholder Group (formerly called the Urea Stakeholder Group) is made up of industries, organizations and companies interested in urea for mobile source applications.

Participants include:

- Government (US Department of Energy, EPA)
- Automotive and heavy-duty engine and truck manufacturer trade associations
- Fuel retailer and truck stop trade associations
- Oil companies
- Urea distributors

The main objectives of the SCR Stakeholder Group are:

To exchange information with US government and other potential urea stakeholders on the potential market and need for urea availability.

To consider effective education and outreach to consumers and commercial concerns about urea, its use and availability.

To engage potential providers of urea availability to determine the conditions necessary for provision of retail availability before a profitable market exists.

If you have any questions concerning the SCR Stakeholder Group or the meeting, please call me at (248) 357-4796.

Sincerely,

Giedrius Ambrozaitis  
Manager of Mobile Sources  
Alliance of Automobile Manufacturers  
Tel. (248) 357-4796  
email: [gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)

**Agendas**  
**DEF "Starburst" Quality Program Subcommittee Meeting ( 10:00 am- 11:45 am)**  
**and**  
**SCR Stakeholder Group Meeting (12:00 pm - 2:00 pm)**  
**February 21, 2008**

Location (for both meetings):

**American Petroleum Institute**

1220 L Street, NW Washington, DC 20005-4070

Conference call number (for both meetings):

1-866-443-0059

**Non-Responsive**

Agendas

**DEF "Starburst" Quality Program Subcommittee Meeting ( 10:00 am- 12:00 noon)**

|   |                                 |        |
|---|---------------------------------|--------|
| <b>1. Introduction/Roll Call</b>  | Patrick Kelly/Kevin Ferrick     | 5 min  |
| <b>2. Subcommittee organization</b><br>a. Objectives & deliverables<br>b. Membership              | Patrick Kelly/Kevin Ferrick/All | 30 min |
| <b>3. Presentation on DEF "Starburst" Quality program</b><br>a. Discussion of program             | Kevin Ferrick<br>All            | 60 min |
| <b>4. Subcommittee Meeting Closure</b><br>Recap Action Items/Assignments<br>Schedule Next Meeting | Patrick Kelly/Kevin Ferrick/All | 10 min |

**Lunch (12 noon - 12:15pm )**

**SCR Stakeholder Group Meeting (12:15 pm - 2:00 pm)**

|   |  |        |
|---|--|--------|
| <b>1. Introduction/Roll Call</b>  | Ambrozaitis  | 5 min  |
| <b>2. Review of previous meeting</b>  | Kulik/All  | 5 min  |
| <b>3. Urea Retail Distribution Discussion</b><br>a. Current Topics<br>b. Milestones and targets<br>c. Update on DEF "Starburst" subcommittee developments<br>d. Latest Industry Developments<br>i. Standards update | Kulik/All<br><br>Patrick Kelly/Kevin Ferrick<br>All<br><br>George Evalt/Zafar Shaikh | 65 min |
| <b>4. Education and Outreach</b><br><b>Education Tools</b><br>Website( DOE Urea Locator )<br>Website (Fact sheets)  | DOE / All  | 45 min |
| <b>5. Meeting Closure</b><br>Recap Action Items/Assignments<br>New Business<br>Schedule Next Meeting  | Kulik/All  | 5 min  |

## **Minutes of the SCR Stakeholders Group Open Meeting**

1220 L Street, NW Washington, DC 20005-4070

Wednesday, January 9, 2008, 12:15am-2:15pm

### Participants:

\* Ed Kulik – Ford  
\* Doug McGregor – BMW  
Brandon Wright - PMAA

Greg Croce - Chevron  
John Ruge – Subaru  
Michael Koss - Dureal  
Patrick Kelly - API  
David Bilby - CF Industries  
Kevin Kokrda - EMA  
\* Teri Kowalski - Toyota  
Cliff Dean - EPA  
David Shaw - Clean Emission Fluids  
Amy Lilly - Honda  
Joy Johnson - Volvo/Mack  
Vic Meloche - Detroit Diesel  
\* Zafar Shaikh - Ford

Jim Spooner - Colonial Chemical  
David Uschwald - Detroit Diesel  
Rich Gross - Cervantes-Delgado Inc.  
Ross Johnson - Yara  
\* Chris Bostwick - Chrysler  
Adam Diamond - CF Industries  
Allen Schaeffer - DTF

Brendan Foster - Benecor  
Rasto Brezny - MECA  
Kingsley Maunder - Integer Research  
FindAdBlue.com  
Holly Alfano - NATSO  
Jackie Yeager - Cummins  
Jeff Brandon - Nissan  
Debbie Brodt-Giles - NREL/DOE  
Friedrich Krahn - Mercedes-Benz Cars  
Will Schaefer - TMA  
Alan Smith - Brenntag  
Karl Tasik - Volvo Powertrain  
George Evalt - SAE/ISO  
Cal Cartinen - International Truck  
Greg Shank - Volvo Powertrain  
Kevin Ferrick - API  
Roberto Boeker - AluMag Automotive  
LLC  
John Cabaniss - AIAM  
William Hertz - The Fertilizer Institute  
Jim Simnick - BP  
Jon Diefenbacher - Daimler Trucks  
Andy Arendt - CHS inc.  
Mansour Masoudi - Bosch  
\* **Ex. 7** VW  
\* Giedrius Ambrozaitis - Alliance

\*Alliance Work Group members or staff.

| Action items  | Responsible        | Deadline     |
|---|--------------------|--------------|
| Discuss with DOE and OEMS requirements for the DEF locator service/submission of dealership locations | Ed Kulik           | Next meeting |
| Investigate availability of a shorter URL for DEF locator service website                             | Debbie Brodt-Giles | Next meeting |

Minutes:

1. Roll call was taken and the antitrust advisories were presented.
2. The group reviewed the previous meeting minutes and actions items and noted a correction to item 5 ( the last sentence should be corrected to state that ISO22241-4 will only apply to Heavy-Duty and not to Light-Duty vehicles).
3. Ed Kulik reviewed the completed milestones and upcoming targets of the SCR Stakeholder Group. He noted that the group will focus on 3 areas going forward:
  - a. Developing a DEF quality system through API;
  - b. Keeping abreast of ISO and SAE standards developments through George Evalt;
  - c. Coordinating DEF education and outreach efforts.
4. Kevin Ferrick updated the group on the subcommittee's progress with the Starburst quality control program for DEF (Diesel Exhaust Fluid). The previous presentation has been updated. The subcommittee discussed certification types (producers, blenders, bulk distributors, branders), how to distinguish DEF from other urea products, batch numbering and traceability in packaged urea or bulk urea, and audit programs and testing requirements for DEF.
5. George Evalt updated the group on the status of standards. Draft ISO standard ISO 22241-3 Urea Infrastructure is not yet published but still likely to be published by the end of the 1st quarter.
6. Zafar Shaikh updated the group on USCAR activities. USCAR is still in the process of approving the document on a standardized warning chain for vehicles without a message center. USCAR is developing another version of the document for vehicles with a message center. It is planned to have SAE adopt these documents as standards.
7. The group discussed DEF website locator activity with NREL. It was noted that the website Truckscr.com should be up and running by the end of January and can be used to host SCR education & outreach materials. The group noted that the locator should only be available to the public once vehicles are available. NREL is in the process of creating a scope of work and deliverables document for the SCR stakeholder Group. The group discussed options for quality controlling the location data for the NREL DEF locator website:
  - a. The OEMs/fuel stations/quick oil change/retailers providing the data would vet their respective data;
  - b. NREL can vet the data through a DOE contract;
  - c. Stakeholders can contract a 3rd party (for example, Integer Research) to vet the data.

8. The group discussed education & outreach. The group noted that timing of efforts should not be too far in advance of actual vehicles availability, although it should be in advance of the locator website going online. It was noted that the DEF locator website address should be printed on the container labels.
9. The next meeting was of the SCR Stakeholder Group and the DEF "Starburst" Quality Program Subcommittee was scheduled for Thursday February 21, 2008 in Washington DC.

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## **Minutes of the SCR Stakeholders Group Open Meeting**

1220 L Street, NW Washington, DC 20005-4070

Thursday, November 29, 2007, 12:15am-2:15pm

### Participants:

\* Ed Kulik – Ford  
\* Doug McGregor – BMW  
Brandon Wright - PMAA  
Greg Croce - Chevron

John Rugge – Subaru

\* **Ex. 7** - VW

Michael Koss - Dureal  
Patrick Kelly - API  
Cliff Dean - EPA  
Chris Nevers - EPA  
David Shaw - Clean Emission Fluids  
Oliver Baer - Clean Emission Fluids  
Amy Lilly - Honda  
Allen Armstrong - Industrial Solution Services  
Aneja Rakesh - Detroit Diesel  
Joy Johnson - Volvo/Mack  
Vic Meloche - Detroit Diesel  
Thomas Troeger - Rehau  
Jim Collura - New England Fuel Institute  
  
\* Zafar Shaikh - Ford  
Jim Spooner - Colonial Chemical

Brendan Foster - Benecor  
Rasto Brezny - MECA  
Shaun Carvey - Mitsui Mining & Smelting  
Alistair Wallace - Integer Research  
FindAdBlue.com  
Holly Alfano - NATSO  
Jackie Yeager - Cummins  
Barry Lonsdale - Terra Industries  
John Lounsbury - Terra Industries  
Donald Thomas - Terra Industries  
George Evalt - SAE/ISO  
Erich Becker - Terra Environmental  
Memed Uzel - Mack  
Shawn Whitaker - Cummins  
Mark Morgan - PMAA

Greg Shank - Volvo Powertrain  
Kevin Ferrick - API  
Dennis Bachelder - API  
Matthias Kruse - Kruse KG  
Roberto Boeker - AluMag Automotive LLC  
John Cabaniss - AIAM  
Ellen Gleberman - AIAM  
\* Giedrius Ambrozaitis - Alliance

\*Alliance Work Group members or staff.

| <b>Action items</b>  | <b>Responsible</b> | <b>Deadline</b> |
|--|--------------------|-----------------|
| Discuss with DOE requirements for the urea locator service | Ed Kulik           | Next meeting    |
| Update and circulate urea locator website template.        | Ed Kulik           | Next meeting    |

### Minutes:

1. Roll call was taken and the antitrust advisories were presented.
2. The group approved the previous meeting minutes and actions items.

3. The group noted that the final Dept. of Homeland Security CFATS rule list did not include urea and so this is no longer an issue.
4. Kevin Ferrick updated the group on the subcommittee's progress with the Starburst quality control program for DEF (Diesel Exhaust Fluid). The subcommittee reviewed the program and identified licensing types (producers, blenders, bulk distributors, branders) and licensee expectations from the program. Kevin noted the SCR Stakeholder Group should address the ongoing governance of the program, in conjunction with an API Task Force of producers and manufacturers. Zafar Shaikh agreed to investigate ownership of the quality symbol with USCAR.
5. George Evalt updated the group on the status of standards. Draft ISO standard ISO 22241-3 Urea Infrastructure has gone to publication and is due to be published before the end of the 1st quarter. The ISO 22241-4 Refill Interface is in the process of balloting. The US issue with the mandatory magnet requirement has been addressed by adding a footnote indicating that manufacturers are "encouraged" to use it. ISO 22241-4 will only apply to Heavy Duty and not to Light Duty vehicles.
6. Zafar Shaikh reported that the SAE symbol for urea ("sideways ice cream cone") has been approved and will be published soon. Japan has also chosen a different symbol than the international ISO symbol ("fuel pump with the word NOx"). Zafar also reported that USCAR has developed (for vehicles without a message center) a recommended chain of events warning chain for the first 2 stages of Inform/Warn/Compel. USCAR will develop the same warning chain for vehicles with a message center. Next steps are to get agreement from vehicles OEMs and EMA/TMA and then have SAE adopt the warning chains as SAE standards.
7. The group discussed education and outreach. Ed Kulik reported that DOE is basing its urea locator website time planning on an anticipated rollout of vehicles starting in November 2008. DOE would then start demonstration work on the urea locator database in February-March and target completion in the June-July 2008 timeframe. Ed asked OEMs to verify that this timing will work for them. The group noted that more information on the filtering process that DOE uses in the existing Clean Cities database would be helpful in filtering urea locations. The group suggested that the DOE website should be linked to navigation providers (TomTom, Navtech, Garmin, Onstar, etc.).
8. Mr. Mathias Kruse of the Kruse Company made a presentation to the group about the Kruse urea bottle-to-vehicle connector.
9. Dr. Thomas Troeger of the Rehau Company made a presentation to the group about the company's product line of heaters for urea lines and tanks.
10. The next meeting was of the SCR Stakeholder Group and the DEF "Starburst" Quality Program Subcommittee was scheduled for Wednesday January 9, 2008 in Washington DC.

Giedrius Ambrozaitis

January 7, 2008

**To:** "Kata, Leonard" [Leonard.Kata@vw.com]  
**Cc:** CN=Bruce Sdunek/OU=AA/O=USEPA/C=US@EPA;CN=Lynn  
Sohacki/OU=AA/O=USEPA/C=US@EPA[]; N=Lynn Sohacki/OU=AA/O=USEPA/C=US@EPA[]  
**From:** CN=Arvon Mitcham/OU=AA/O=USEPA/C=US  
**Sent:** Thur 2/21/2008 1:53:53 PM  
**Subject:** Re: VW ADP - 2009 Carryover  
09DUR-VWA-53312.pdf

Dear Mr. Kata:

Attached is an electronic version of your 2009 Model Year Durability Approval Letter. A hard-copy has also been sent to you and should be arriving within the next week. If you do not receive it, please let us know.

If you have any questions or concerns, please let us know. Thank you for your cooperation and we look forward to working with you in the future.

- Arvon L. Mitcham  
Project Manager/Engineer  
U.S. Environmental Protection Agency  
Office of Transportation and Air Quality  
Compliance and Innovative Strategies Division



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY  
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OFFICE OF  
AIR AND RADIATION

February 20, 2008

Mr. Leonard W. Kata  
Manager, Emissions Regulation and Certification  
Engineering and Environmental Office  
Volkswagen of America, Inc.  
3800 Hamlin Road  
Auburn Hills, MI. 48326

Subject: Approval of the Carry-Over Request for Volkswagen's Model Year 2009  
Alternative Durability Procedures

Dear Mr. Kata:

We received your letter dated February 14, 2008 requesting approval to carry-over Volkswagen's alternative whole vehicle and bench-aging durability procedures for the 2009 model year.

We have reviewed the attached package of materials you forwarded and deem that it is compliant with 40 CFR §86.1823-08(e). Therefore, we are approving your alternative whole vehicle and bench-aging durability procedure for the 2009 model year.

If you have questions or concerns regarding this approval, please contact Mr. Arvon L. Mitcham at (734) 214-4522 or Ms. Lynn Sohacki at (734) 214-4851. Thank you.

Respectfully,

Linc Wehrly, Manager  
Light-Duty Vehicles Group  
Compliance and Innovative Strategies Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

cc: Arvon L. Mitcham, Lynn Sohacki (U.S. EPA-OTAQ-CISD)  
09DUR-VWA-53312



Printed on Recycled Paper

**To:** "Giedrius Ambrozaitis" [gambrozaitis@autoalliance.org]; Allen Schaeffer (Diesel Tech Forum)" [IMCEAEX-  
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**From:** "Patrick Kelly"

**Sent:** Thur 2/21/2008 2:02:22 PM

**Subject:** SCR Stakeholder Group Presentation materials for today's meeting

[DEFplanrev4.ppt](#)

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[gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)

For those calling into the first part of today's meetings, a presentation is attached.

As a reminder, the call in number is 1-866-443-0059; conference code 202 682 8233.

Regards,

Patrick Kelly

API

From: Giedrius Ambrozaitis [mailto:[gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)]

Sent: Friday, February 15, 2008 4:23 PM

To: Giedrius Ambrozaitis; Allen Schaeffer (Diesel Tech Forum); Alyssa Werthman (Ford Motor Company); Andrew Kosiak; Anita Rajan (Mitsubishi Motors R&D of America); Anna-Maria Schneider (Toyota Motor North America, Inc.); Atit Amin; Barbara Nocera (Mazda North American Operations); Brendan Foster; C Moughlor; Casimer Andary; Chris Nevers; Christine Lambert (Ford Motor Company); Clifford Dean; D Wyeany; Dale Kardos (Dale Kardos & Associates, LLC); David Kayes; David Shaw; Dennis Smith; Doug McGregor (BMW of North America, Inc.); Ed Kulik (Ford Motor Company); Edward Cohen (Honda North America, Inc.); Eric Schneider (Mercedes Benz); F Lockwood; Frank Rutten; Fred Sciance (General Motors Corporation); G Croce; Greg Dana; Greg McAfee; Gregory Scott (Kelley Drye Collier Shannon); Hauke Braack; I Tepsa; Ichiro Sakai (Honda); J Barr; J Fellman; J Suchecki; Jackie Bell; Jackie Yeager; Jamie Song; Jean Fellenberg; Jean Johnson; Jim Spooner; Joerg Debus; John Cabaniss (Association of International Automobile Manufacturers); John Eichberger (National Assoc of Conv Stores); John Ruge (Subaru of America, Inc.); Joseph Kaufman (ConocoPhillips); Julie Becker; K Phystrom; Karl Simon (EPA); Karl Tasik; Ken Howden; Kevin Kokrda (Engine Manufacturers Association); L Enrocco; Lance Tunick; Larry Northup; Linc Wehrly; M Buczek; Marcel de Kort; Mark Busch; Matthew Kevnick (Toyota Technical Center USA, Inc.); Michael Koss; Michael Potter (General Motors Corporation); Oliver Baer; Owen Busch; Patrick Kelly; Patrick Lammers; Patrik Klintbom; Rich Bell (Ford Motor Company); Richard Baker (Ford Motor Company); Robert Babik (General Motors Corporation); Robert Fasnacht; Robert Hagenaars; Robert Jorgensen; Robert M. Clarke; Robert Rupert; Rochelle Neal; Rosemary Perry; Ross Johnson; Ryan Carroll; S Bowling; Steve Berry; Steve Douglas; **Ex. 7** (Volkswagen of America, Inc.); T Columbus; Taylor



Davis; Teri Kowalski (Toyota Technical Center USA, Inc.); Terry Goff; Uzel Memed; Vic Meloche; Walter Lewis (Porsche Cars of North America, Inc.); Warren Kotacska; Warren Slodowske; Wilhelm Hall (BMW of North America, Inc.); Yuri Kalish; Zafar Shaikh; Sheila James; 'Luis Cervantes, Jr.'; 'Thomas, Donald'; 'Lonsdale, Barry'; 'John Lounsbury'; 'Groeneveld, Michel'; 'Dan Gilligan'; 'KAYLC@kochind.com'; 'Simnick, James J'; 'Brodts-Giles, Debbie'; 'Claassen, Matt'; 'Mark S. Morgan, Esq.'; 'Christopher Pett'; 'Johnson Joy'; 'Rasto Brezny'; 'Brandon Wright'; 'robert.aman@skf.com'; 'shauncmmsusa@nycap.rr.com'; Friedrich Krahn; 'thomas.troeger@rehau.com'; 'manoj.tummala@gm.com'; Allen Armstrong; 'peavyhouse.robert@epa.gov'; 'toshiya.shiozawa@hino.co.jp'; 'kato@hino.com'; 'daniels@hino.com'; 'gevalt2@comcast.net'; Dennis Bachelder; 'ferrickk@api.org'; 'gsgutowski@aaamichigan.com'; 'wschaefer@truckmfgs.org'; 'r.boeker@alumag.de'; asmith714@yahoo.com; rsompel@cfindustries.com; susan.leach@gm.com; saverio.verduci@gm.com; Richard Moskowitz; erich@thebeckercompanies.com; Greg Shank (Mack Trucks); Amy Lilly (American Honda Motor Company, Inc.); jimcollura@nefi.com; shane@nefi.com; brent.calcut@detroitdiesel.com; halfano@natso.com; Barry Felrice (Chrysler LLC); 'dd28@chrysler.com'; 'rrm6@chrysler.com'; 'srm2@chrysler.com'; Chris Bostwick; 'klaus.land@daimler.com'; 'rudolf.thom@daimler.com'; 'simon.godwin@daimler.com'; 'dbilby@cfindustries.com'; 'shawn.whitacre@cummins.com'; Loren K. Beard; 'mansour.masoudi@us.bosch.com'; 'andy.arendt@chsinc.com'; 'wcherz@tfi.org'; 'mikedelaney@freightliner.com'; 'adiamond@cfindustries.com'; 'kdoran@quixotegroup.com'; Roger Gault (Engine Manufacturers Association); 'kingsley.maunder@integer-research.com'; 'Larry Robertson (DaimlerChrysler Corporation)'; 'david.uschwald@purem-na.com'; 'mz10@chrysler.com'; 'alistair.wallace@integer-research.com'

Subject: SCR Stakeholder Group -- Next meetings February 21 starting @ 10 am in Washington DC

This is a reminder notice that the next SCR Stakeholder Group meeting and the next DEF "Starburst" Quality Subcommittee meeting will both be held on February 21 at the American Petroleum Institute offices (1220 L Street, NW Washington, DC 20005-4070), beginning at 10:00 AM EST. The call-in number will be 1-866-443-0059 with **Non-Responsive** for both meetings. A working lunch will be provided.

The first meeting will be the DEF "Starburst" Quality Subcommittee and will start at 10:00 am EST.

The second meeting will be the SCR Stakeholder Group and will start at 12:15 pm EST (right after lunch).

For lunch headcount planning, please RSVP to Alicia Raymond of API (email: raymonda@api.org ) if you are planning to attend in person.

Attached please find the agendas for the February 21 meetings, the draft minutes from the last meeting on January 9, the corrected minutes from the November 29th meeting and the excel list of participants.

=====

The SCR Stakeholder Group (formerly called the Urea Stakeholder Group) is made up of industries, organizations and companies interested in urea for mobile source applications.

Participants include:

- Government (US Department of Energy, EPA)
- Automotive and heavy-duty engine and truck manufacturer trade associations
- Fuel retailer and truck stop trade associations
- Oil companies
- Urea distributors

The main objectives of the SCR Stakeholder Group are:

To exchange information with US government and other potential urea stakeholders on the potential market and need for urea availability.

To consider effective education and outreach to consumers and commercial concerns about urea, its use and availability.

To engage potential providers of urea availability to determine the conditions necessary for provision of retail availability before a profitable market exists.

If you have any questions concerning the SCR Stakeholder Group or the meeting, please call me at (248) 357-4796.

Sincerely,

Giedrius Ambrozaitis  
Manager of Mobile Sources  
Alliance of Automobile Manufacturers  
Tel. (248) 357-4796  
email: [gambrozaitis@autoalliance.org](mailto:gambrozaitis@autoalliance.org)



# **Diesel Exhaust Fluid Certification Program**

SCR Stakeholder Group  
February 21, 2008

# Diesel Exhaust Fluid (DEF) Certification Program

*Primary goal: To ensure that diesel exhaust fluids meeting industry-established requirements are readily available*

- Voluntary program that certifies and monitors diesel exhaust fluid performance
- Licenses use of DEF mark on diesel exhaust fluid that meets ISO 22241 standard
- Certification from manufacturer to point-of-sale
- Established through agreement between API and USCAR?

# API's Role

- Certify against industry-recognized standards
- Authorize licensed companies to use registered mark on packaging and in conjunction with bulk sales
- Provide Directory of Licensees on-line in real-time
- Sample and test licensed products purchased in marketplace or gathered from licensed manufacturers
- Take enforcement actions against marketers and manufacturers not meeting certification requirements or misusing DEF mark

# Benefits of Certification

- Helps to ensure availability of diesel exhaust fluid meeting industry-recognized standards
- Identifies which products meet diesel engine manufacturer requirements and helps consumers find products meeting those requirements
- Gives consumers a choice of quality products from which to choose
- Helps reduce NOx emissions
- Provides rigorous monitoring of products in marketplace
- Takes enforcement action against companies not meeting diesel engine manufacturer requirements

# Performance Requirements and Program Documentation

- ISO 22241 Parts 1, 2 and 3
- API licensing guide [explanation of program, rules on use of mark, reference to ISO 22241, explanation of monitoring and enforcement, rules beyond those in ISO 22241(if needed)]
- API license application (ideally, on-line application process plus license agreement)
- Promotional literature
- On-line Directory of Licensees

# Certification Types

- Producer—manufactures DEF meeting ISO 22241
- Bulk distributor—distributes DEF to packagers, installers, and branders
- Packager—packages DEF meeting ISO 22241 and sells to installers
- Brander—sells DEF meeting ISO 22241 under unique brand name to installers



# Certification Types continued

- Commitment from all licensees to distinguish certified DEF from other urea products
- Method for clearly drawing distinction between certified DEF and uncertified

# Product Data and Information

## Examples of information required for licensing

- Product name and batch numbering scheme for bulk products
- Product name and container identification numbering scheme (traceability code) for packaged products (including IBCs and drums)
  - Batch number and/or container IDs must be legible
  - Both must enable traceability from point of manufacture to installation



| PART D—PRODUCT TRACEABILITY CODE (Example)   |   |
|--|---|
| New York Oil Co.   | 777   |
| Name of Company  | License no.   |
| John Smith   | November 3, 1992  |
| Name of Preparer   | Date  |
| 212 726-5000   | 212 726-5001  |
| Telephone  | FAX   |
| (If outside United States and Canada, include country and city code.)  |   |
| 1. <b>Brand Name</b> <u>New York Supreme</u>   |   |
| 2. <b>Viscosity Grade</b> <u>10W-30</u>  |   |
| 3. <b>Product Traceability Code</b>  |   |
| Insert here and down the vertical column below the alphanumeric characters that comprise your product traceability code. The code must include your formulation identifiers.   |   |
| <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px 10px;">M</div> <div style="border: 1px solid black; padding: 5px 10px;">2</div> <div style="border: 1px solid black; padding: 5px 10px;">A</div> <div style="border: 1px solid black; padding: 5px 10px;">4</div> <div style="border: 1px solid black; padding: 5px 10px;">X</div> <div style="border: 1px solid black; padding: 5px 10px;">2</div> <div style="border: 1px solid black; padding: 5px 10px;">0</div> <div style="border: 1px solid black; padding: 5px 10px">#</div> <div style="border: 1px solid black; padding: 5px 10px">#</div> <div style="border: 1px solid black; padding: 5px 10px;"></div> <div style="border: 1px solid black; padding: 5px 10px;"></div> <div style="border: 1px solid black; padding: 5px 10px;"></div> <div style="border: 1px solid black; padding: 5px 10px;"></div> <div style="border: 1px solid black; padding: 5px 10px;"></div> </div> |   |
| On the blank lines below, identify the meaning of the alphanumeric characters used in your product traceability code. Use the reverse side if additional space is needed.  |   |
| <b>Characters From Above</b>   | <b>Interpretation</b>   |
| <div style="border: 1px solid black; padding: 5px 10px;">M</div>   | <div style="border: 1px solid black; height: 20px;"></div> Plant Location   |
| <div style="border: 1px solid black; padding: 5px 10px;">2</div>   | <div style="border: 1px solid black; height: 20px;"></div> Proprietary; not necessary for formulation identification                      |
| <div style="border: 1px solid black; padding: 5px 10px;">A</div>   | <div style="border: 1px solid black; height: 20px;"></div> Specific formulation   |
| <div style="border: 1px solid black; padding: 5px 10px;">4</div>   | <div style="border: 1px solid black; height: 20px;"></div> Not relevant to this matter  |
| <div style="border: 1px solid black; padding: 5px 10px;">X</div>   | <div style="border: 1px solid black; height: 20px;"></div> Proprietary; not necessary for formulation identification                      |
| <div style="border: 1px solid black; padding: 5px 10px;">2</div>   | <div style="border: 1px solid black; height: 20px;"></div> This line & next two indicate the day of the year the product was manufactured |
| <div style="border: 1px solid black; padding: 5px 10px;">0</div>   | <div style="border: 1px solid black; height: 20px;"></div> See above  |
| <div style="border: 1px solid black; padding: 5px 10px;">2</div>   | <div style="border: 1px solid black; height: 20px;"></div> See above  |
| <div style="border: 1px solid black; padding: 5px 10px;">#</div>   | <div style="border: 1px solid black; height: 20px;"></div> Time of manufacture: 1 = a.m.; 2 = p.m.; etc.                                  |
| <div style="border: 1px solid black; padding: 5px 10px;">#</div>   | <div style="border: 1px solid black; height: 20px;"></div> Year of manufacture: 1 = 2001; 2 = 2002; etc.                                  |

# DEF Audit Program

## Modeled after EOLCS Aftermarket Audit Program

- Samples drawn from marketplace annually (packaged and bulk)
  - Blind-number coded and shipped to test lab
  - Identity of sample known only by API
  - Sample undergoes series of tests
  - Test results evaluated and licensee notified of results
  - Enforcement action taken as needed (varies from assurance of correction to cancellation of license or recall)
- Packaged products inspected for proper use of mark
- Bulk shipment paperwork audited (see attached flow chart of potential sampling opportunities)
- Summary report delivered to governing committees and other interested parties
- Emphasis on protection of proprietary information

# Audit Testing

- Tests proposed at last meeting
  - Refractive index
  - Alkalinity
  - Aldehydes
  - Elements (phosphate, calcium, iron, copper, etc)
  - Are these it?

| Characteristics                        | Unit                 | Limits                 |         | Test methods   |
|--|----------------------|------------------------|---------|--|
|  |                      | min.                   | max.    |  |
| Urea content <sup>a</sup>              | % (m/m) <sup>d</sup> | 31,8                   | 33,2    | ISO 22241-2 Annex B <sup>e</sup><br>ISO 22241-2 Annex C <sup>e</sup> |
| Density at 20 °C <sup>b</sup>          | kg/m <sup>3</sup>    | 1 087,0                | 1 093,0 | ISO 3675 or ISO 12185  |
| Refractive index at 20 °C <sup>c</sup> | —                    | 1,381 4                | 1,384 3 | ISO 22241-2 Annex C  |
| Alkalinity as NH <sub>3</sub>          | % (m/m) <sup>d</sup> | —                      | 0,2     | ISO 22241-2 Annex D  |
| Biuret                                 | % (m/m) <sup>d</sup> | —                      | 0,3     | ISO 22241-2 Annex E  |
| Aldehydes                              | mg/kg                | —                      | 5       | ISO 22241-2 Annex F  |
| Insoluble matter                       | mg/kg                | —                      | 20      | ISO 22241-2 Annex G  |
| Phosphate (PO <sub>4</sub> )           | mg/kg                | —                      | 0,5     | ISO 22241-2 Annex H  |
| Calcium                                | mg/kg                | —                      | 0,5     | ISO 22241-2 Annex I  |
| Iron                                   | mg/kg                | —                      | 0,5     |  |
| Copper                                 | mg/kg                | —                      | 0,2     |  |
| Zinc                                   | mg/kg                | —                      | 0,2     |  |
| Chromium                               | mg/kg                | —                      | 0,2     |  |
| Nickel                                 | mg/kg                | —                      | 0,2     |  |
| Aluminium                              | mg/kg                | —                      | 0,5     |  |
| Magnesium                              | mg/kg                | —                      | 0,5     |  |
| Sodium                                 | mg/kg                | —                      | 0,5     |  |
| Potassium                              | mg/kg                | —                      | 0,5     |  |
| Identity                               | —                    | identical to reference |         | ISO 22241-2 Annex J  |

# Audit Testing continued

- Tests plus collection costs around \$1,500 to \$2,000 per sample
- Considering best way to ensure statistically relevant random sampling across USA
- Testing conducted in accordance with ISO 22241-2
- Amount of DEF required for testing/retesting/challenge of results?
- Conformance judged within precision of test methods (Annex B ISO 22241-1 and -2)

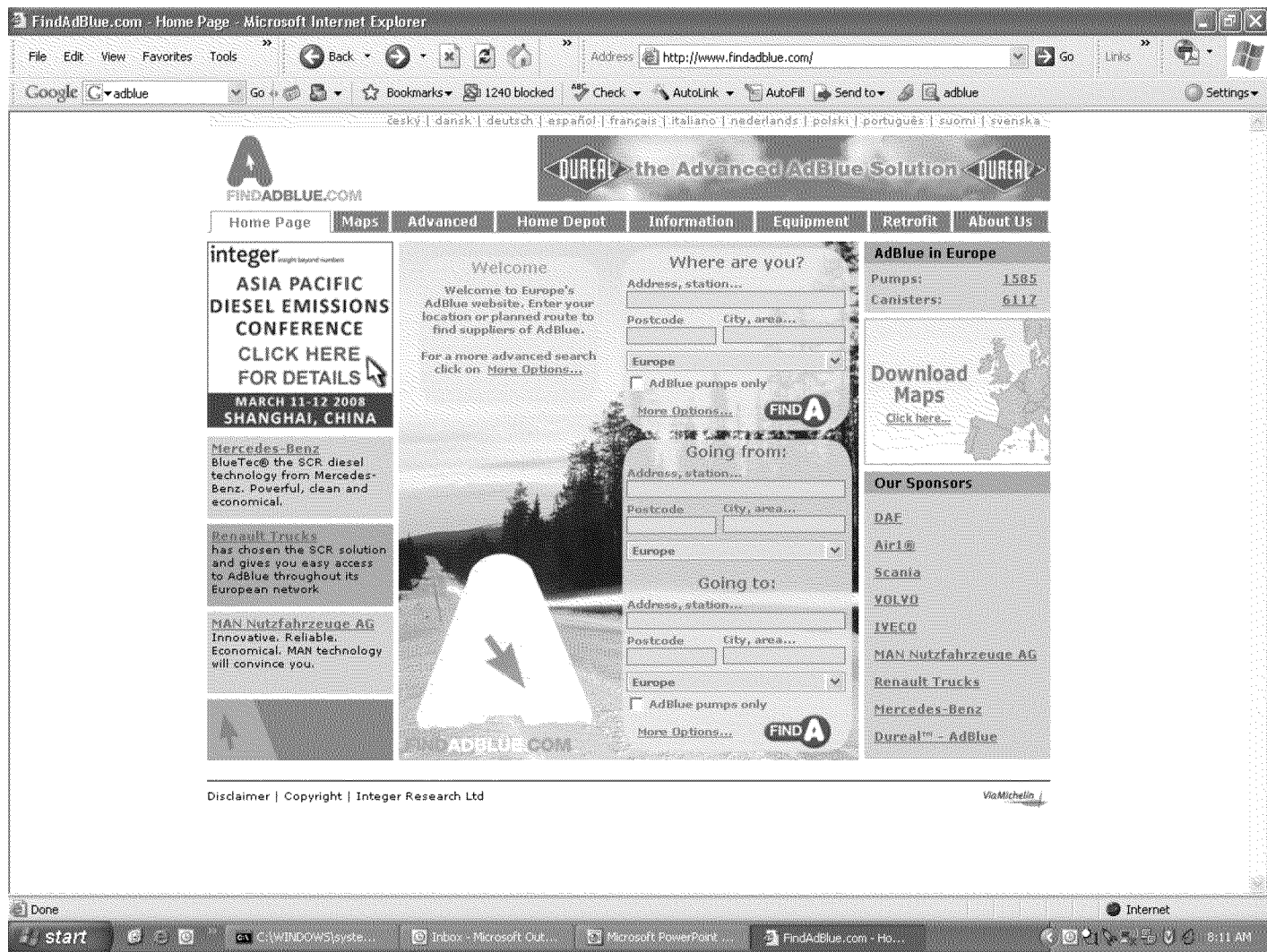
# Program Governance

- API Committee on Special Programs (oversees dollars and cents of program)
- API Marketing Committee: agreed that Special Programs Committee should evaluate merits of new program
- Designated technical committee needed to provide program oversight
  - SCR Stakeholder Group?
  - Joint OEM/API/marketer group?
- API recommends joint committee: one or two representatives from EMA, the Alliance, API, urea manufacturers, and licensed marketers



# Fees

- VDA model
  - Agreement between marketer and VDA
  - One-time fee paid to VDA (11,000 € to 20,000 €)
  - Additional yearly fees to cover costs of program
- No audit program
- Does VDA publish list of licensees?
- Website locator does not provide list



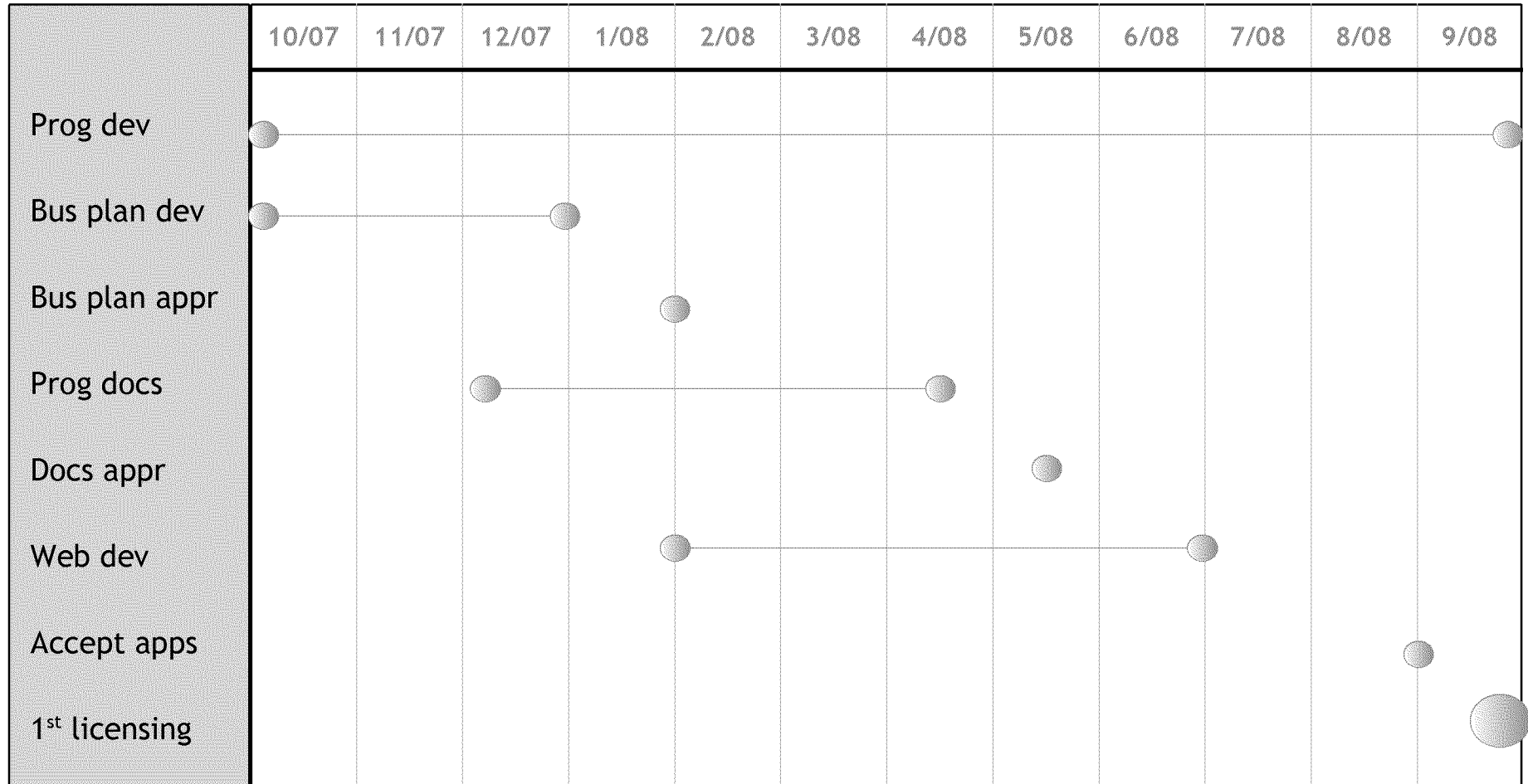
## Fees continued

- Considering annual fee for marketer
- What's a marketer?
  - “Marketing organization responsible for integrity of brand name and representation of branded product in marketplace”
  - “Marketer solely responsible for ensuring that performance characteristics of certified DEF meet all requirements for certification program”
- Identification of role (producer, bulk distributor, packager, blender) required
- Volume-of-sale fee also being considered (for example, for engine oil, \$0.0015 per gallon of licensed oil sold or \$1,500 per million gallons sold)

## Fees continued

- Tiax study estimates volume of DEF through 2015
- Estimates of potential number of marketers scarce
- Nearly all North American engine oil licensees (approximately 240) market diesel engine oils
- Is this reflective of number of potential DEF certifications?

# DEF Certification Development and Introduction



## Next Steps

- Work group hammers out details of program
- API and SCR Stakeholder Group determine governance
- Obtain Special Programs Committee approval

To: Linc Wehrly/AA/USEPA/US@EPA;[ken.howden@ee.doe.gov];  
ken.howden@ee.doe.gov>[]

Cc: JBECKER@autoalliance.org> Ex. 7

Ex. 7

Arman Tanman/DC/USEPA/US@EPA[]

Sent: Thur 2/21/2008 4:52:25 PM

Subject: Light-Duty Clean Diesel Technologies Session

Hi Linc and Ken:

I wanted to check with both of you to find out what kind of progress you've made on lining up presentations from the Government side for the Light Duty Clean Diesel Technologies Session at the upcoming SAE Government Industry meeting.

Currently I have one confirmed presentation from the industry side:

Upcoming Volkswagen Models with Clean Diesel Technology - Ex. 7

I also have some potential presentations that I can pursue: 1) The role of turbochargers in passenger vehicle diesel engines - Honeywell; and 2) New aftertreatment technologies for passenger vehicle diesel engines - Corning

I know that historically we have tried to keep the number of presentations to no more than 4 or 5 to allow adequate time for Q & A's.

If I can get a sense from both of you as to how many Government presentations you envision then I will have a better idea of how many industry presentations I can pursue keeping in mind that the deadline for submission of the session presentation titles and names of presenters is due back to SAE by 2/29.

I look forward to hearing from you.

Best regards,

Ex. 7

-----Original Message-----

From: Tanman.Arman@epamail.epa.gov [mailto:Tanman.Arman@epamail.epa.gov]

Sent: Monday, February 11, 2008 9:01 AM

To: Ex. 7 Wehrly.Linc@epamail.epa.gov

Cc: Ex. 7 JBECKER@autoalliance.org;

ken.howden@ee.doe.gov; **Ex. 7**  
Subject: Re: FW: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi **Ex. 7**

The EPA person for the Light Duty Diesel Session will be Linc Wehrly, his info is below:

- Tuesday, May 13 @ 9:15am This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines. Vehicle manufactures will reveal their plans on introducing diesel engines to the U.S. market.

Organizers:

EPA: Linc Wehrly- USEPA National Vehicle and Fuel Emissions Laboratory/OAR , 2565 Plymouth Road , Mail Code: AALDVG , Ann Arbor, MI 48105, Tel: 734-214-4917 Email: wehrly.linc@epa.gov

DOE: Ken Howden, DOE, email: ken.howden@ee.doe.gov

Industry: **Ex. 7**

Thanks to all for your help in organizing this session, Arman

**Ex. 7**

To  
Arman Tanman/DC/USEPA/US@EPA  
02/08/2008 12:47 PM cc  
<JBECKER@autoalliance.org>,  
<ken.howden@ee.doe.gov>,

**Ex. 7**

Subject  
FW: Trying to get organizers for  
the SAE Enviro/Energy Sessions

Hi Arman,



I will be the Industry Representative for the Light Duty Diesel Session at the upcoming SAE Government Industry meeting (9:30am, 5/13).

I am already aware of interest on the part of at least one of my VW colleagues who wants to make a presentation. I have copied Ken Howden from DOE (DOE Gov. co-chair), Julie Becker from the Auto Alliance, but I do not have an e-mail address for Linc Wehrly (EPA Gov. co-chair). If you could provide me with Linc's e-mail address, I would greatly appreciate it. I will contact my co-chairs for this session and begin to put together the list of presentations.

If you are aware of any industry representatives who have expressed an interest to make a presentation at this session, please let me know.

Best regards,

Ex. 7

-----Original Message-----

From: Ex. 7

Sent: Thursday, February 07, 2008 10:50 AM

To: 'Tanman.Arman@epamail.epa.gov'

Cc:

Ex. 7

**Ex. 7**

Subject: RE: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Arman,

You are correct that I had volunteered to get you an industry session organizer for the 9:30am Light-Duty Diesel Technologies session on Tuesday, May 13th, during the SAE Government Industry Meeting. I am checking with my VW colleagues in Michigan and they will get back to me tomorrow with a definite answer. If they are not available to chair the session, then I will accept the responsibility myself. I will have a name for you by COB tomorrow.

I know that my VW colleagues have expressed an interest to give one or two presentations for the session. Do you know if Linc Wehrly - USEPA National Vehicle and Fuel Emissions Laboratory/OAR or Ken Howden - DOE have heard from any potential presenters for the government side?

I also know that Julie Becker from the Alliance sent out a request for participation in the Environmental Sessions at G/I but I'm not sure if she received any response in the Light Duty Diesel area.

Best regards,

**Ex. 7**

## Ex. 7

Light Duty Clean Diesel Technologies  
9:30 a.m.

This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines.  
Vehicle manufactures will reveal their plans on introducing diesel engines to the U.S. market.

-----Original Message-----

From: Tanman.Arman@epamail.epa.gov [mailto:Tanman.Arman@epamail.epa.gov]

Sent: Thursday, February 07, 2008 10:09 AM

To: Ex. 7

Subject: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Ex. 7

We are still trying to get all the organizers for the 10 session we have identified. We have most of the industry organizers identified and at least one organizer for the government side. I am working with Ken Howden in DOE for some of the other gov. organizers. One we are missing an industry organizer for is the Light-Duty Clean Diesel Technologies session. I think you had volunteered to be the industry organizer, but I can't remember. Are you still interested or can you recommend someone?

Thanks,  
Arman

(See attached file: SAE 2008 Evnviro+Enrgy Sessions & Organizers.doc)

Arman Tanman  
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(See attached file: SAE 2008 Evnviro+Enrgy Sessions & Organizers.doc)

**To:** "Giedrius Ambrozaitis" [gambrozaitis@autoalliance.org]; Allen Schaeffer (Diesel Tech Forum)" [IMCEAEX-  
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**From:** "Brodt-Giles, Debbie"  
**Sent:** Thur 2/21/2008 4:54:21 PM  
**Subject:** DEF Locator Spreadsheet for OEMs to Complete  
[table values\\_final.xls](#)

In the SCR Stakeholder meeting today, we will be discussing the attached file. It is a spreadsheet that should be completed by all OEMs who want their Diesel Exhaust Fluid (DEF) locations included in the DEF Locator Tool. All information in each column should be completed as thoroughly as possible. The most important element is getting the complete address correct so that when the information is geocoded and put into the mapping tool, the maps will be accurate.

If you have any questions about the fields required or the process for collecting this data, please contact me. Also, we are requesting that this information be completed within the next month so that we have a good data set to start building the locator. So please provide me with your completed spreadsheets via e-mail by March 28th.

Thank you very much!

Debbie Brodt-Giles  
 The National Renewable Energy Laboratory  
 Center for Transportation Technologies and Systems  
 1617 Cole Blvd. MS 1633  
 Golden, CO 80401  
 (303) 275-4440

## DEF Locator Table Values

| Status | Site Name | Street Address | City |
|--------|-----------|----------------|------|
|--------|-----------|----------------|------|

|                           |   |                                   |  |
|---------------------------|---|-----------------------------------|--|
| <i>E - Existing,</i>      |   | <i>Needs to be as complete as</i> |  |
| <i>0 - Out of Service</i> | <i>Actual name as displayed at location</i> | <i>possible</i>                   |  |





| Primary Web Site | Payment Type | Dispensing Capability | Diesel Fuel Availability |
|------------------|--------------|-----------------------|--------------------------|
|------------------|--------------|-----------------------|--------------------------|

|                                 |                               |  |                 |
|---------------------------------|-------------------------------|--|-----------------|
|                                 | <i>B - Bottle,</i>            |  |                 |
|                                 | <i>L - Leak-proof Bottle,</i> |  | <i>Y - Yes,</i> |
| <i>Visa, MC, Discover, etc.</i> | <i>H - High Flow Pump</i>     |  | <i>N - No</i>   |



| OPIS #  | Service Available                               | Site Access                                  | Vehicles Serviced     | Date Last Confirmed |
|---|---|--|-----------------------|---------------------|
| <i>Linked to diesel fuel stations supports navigation system requests</i> | <i>DFM - Do it for me, DIY - Do it yourself</i> | <i>Public, Private, Access Card Required</i> | <i>HD, LD, Fleets</i> | <i>10/21/2008</i>   |

**To:** Linc Wehrly/AA/USEPA/US@EPA;[ken.howden@ee.doe.gov];  
ken.howden@ee.doe.gov>[]

**Cc:** Arman Tanman/DC/USEPA/US@EPA; Ex. 7

**Ex. 7**

[MJena@sae.org]

**From:** Ex. 7

**Sent:** Fri 2/29/2008 5:16:57 PM

**Subject:** RE: Light-Duty Clean Diesel Technologies Session  
[giorf2008 \(VW\).doc](#)

Hi Linc and Ken:

Attached is the form requested by Melissa Jena due today. I have filled it out for the "Industry" side. I'm assuming that you will (or already have) sent in the form for the Government presentations.

As of today, I only have one firm industry presentation for the Light Duty Clean Diesel Technologies Session. Melissa indicates that we can still add more presentations to the list after today but we run the risk of not having them listed in the final program.

Please let me know your availability for a conference call sometime during next week (the week of March 3rd) so that we can talk about the order of the session presentations (government and industry).

I am available pretty much any day except Tuesday afternoon and Thursday morning next week.

Looking forward to our discussion.

Best regards,

**Ex. 7**

-----Original Message-----

**From:** Ex. 7

**Sent:** Thursday, February 21, 2008 11:52 AM

**To:** Wehrly.Linc@epamail.epa.gov; ken.howden@ee.doe.gov

**Cc:** Ex. 7 JBECKER@autoalliance.org; Ex. 7

'Tanman.Arman@epamail.epa.gov'

**Subject:** Light-Duty Clean Diesel Technologies Session

Hi Linc and Ken:

I wanted to check with both of you to find out what kind of progress

you've made on lining up presentations from the Government side for the Light Duty Clean Diesel Technologies Session at the upcoming SAE Government Industry meeting.

Currently I have one confirmed presentation from the industry side:

Upcoming Volkswagen Models with Clean Diesel Technology - **Ex. 7**

I also have some potential presentations that I can pursue: 1) The role of turbochargers in passenger vehicle diesel engines - Honeywell; and 2) New aftertreatment technologies for passenger vehicle diesel engines - Corning

I know that historically we have tried to keep the number of presentations to no more than 4 or 5 to allow adequate time for Q & A's.

If I can get a sense from both of you as to how many Government presentations you envision then I will have a better idea of how many industry presentations I can pursue keeping in mind that the deadline for submission of the session presentation titles and names of presenters is due back to SAE by 2/29.

I look forward to hearing from you.

Best regards,

**Ex. 7**

-----Original Message-----

From: Tanman.Arman@epamail.epa.gov [mailto:Tanman.Arman@epamail.epa.gov]

Sent: Monday, February 11, 2008 9:01 AM

To: **Ex. 7** Wehrly.Linc@epamail.epa.gov

Cc: **Ex. 7** JBECKER@autoalliance.org;

ken.howden@ee.doe.gov; **Ex. 7**

Subject: Re: FW: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi **Ex. 7**

The EPA person for the Light Duty Diesel Session will be Linc Wehrly, his info is below:

- Tuesday, May 13 @ 9:15am This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines. Vehicle manufactures will reveal their plans on introducing diesel engines to the U.S. market.

Organizers:

EPA: Linc Wehrly- USEPA National Vehicle and Fuel Emissions  
Laboratory/OAR , 2565 Plymouth Road , Mail Code: AALDVG , Ann Arbor, MI  
48105, Tel: 734-214-4917 Email: wehrly.linc@epa.gov

DOE: Ken Howden, DOE, email: ken.howden@ee.doe.gov

Industry: **Ex. 7**

Thanks to all for your help in organizing this session, Arman

**Ex. 7**

To

Arman Tanman/DC/USEPA/US@EPA

02/08/2008 12:47

cc

PM

<JBECKER@autoalliance.org>,  
<ken.howden@ee.doe.gov>,

**Ex. 7**

Subject

FW: Trying to get organizers for  
the SAE Enviro/Energy Sessions

Hi Arman,

I will be the Industry Representative for the Light Duty Diesel Session  
at the upcoming SAE Government Industry meeting (9:30am, 5/13).

I am already aware of interest on the part of at least one of my VW  
colleagues who wants to make a presentation. I have copied Ken Howden  
from DOE (DOE Gov. co-chair), Julie Becker from the Auto Alliance, but I  
do not have an e-mail address for Linc Wehrly (EPA Gov. co-chair). If  
you could provide me with Linc's e-mail address, I would greatly  
appreciate it. I will contact my co-chairs for this session and begin  
to put together the list of presentations.

If you are aware of any industry representatives who have expressed an  
interest to make a presentation at this session, please let me know.

Best regards,

**Ex. 7**

-----Original Message-----

From: **Ex. 7**

Sent: Thursday, February 07, 2008 10:50 AM

To: 'Tanman.Arman@epamail.epa.gov'

Cc: **Ex. 7**

**Ex. 7**

Subject: RE: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Arman,

You are correct that I had volunteered to get you an industry session organizer for the 9:30am Light-Duty Diesel Technologies session on Tuesday, May 13th, during the SAE Government Industry Meeting . I am checking with my VW colleagues in Michigan and they will get back to me tomorrow with a definite answer. If they are not available to chair the session, then I will accept the responsibility myself. I will have a name for you by COB tomorrow.

I know that my VW colleagues have expressed an interest to give one or two presentations for the session. Do you know if Linc Wehrly - USEPA National Vehicle and Fuel Emissions Laboratory/OAR or Ken Howden - DOE have heard from any potential presenters for the government side?

I also know that Julie Becker from the Alliance sent out a request for participation in the Environmental Sessions at G/I but I'm not sure if she received any response in the Light Duty Diesel area.

Best regards,

**Ex. 7**

Light Duty Clean Diesel Technologies

9:30 a.m.

This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines.

Vehicle manufactures will reveal their plans on introducing diesel engines to the U.S. market.

-----Original Message-----

From: Tanman.Arman@epamail.epa.gov [mailto:Tanman.Arman@epamail.epa.gov]  
Sent: Thursday, February 07, 2008 10:09 AM  
To: Ex. 7  
Subject: Trying to get organizers for the SAE Enviro/Energy Sessions

Hi Ex. 7

We are still trying to get all the organizers for the 10 session we have identified. We have most of the industry organizers identified and at least one organizer for the government side. I am working with Ken Howden in DOE for some of the other gov. organizers. One we are missing an industry organizer for is the Light-Duty Clean Diesel Technologies session. I think you had volunteered to be the industry organizer, but I can't remember. Are you still interested or can you recommend someone?

Thanks,  
Arman

(See attached file: SAE 2008 Evnviro+Enrgy Sessions & Organizers.doc)

Arman Tanman  
Mechanical/Environmental Engineer  
U.S. Environmental Protection Agency  
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Washington, D.C. 20005

(See attached file: SAE 2008 Evnviro+Enrgy Sessions & Organizers.doc)

**2007 Government/Industry Meeting****DUE DATE:** by February 29, 2008**ORGANIZER REPORT FORM**

Session Code: \_\_\_\_\_

**Return to:** **Melissa Jena**, SAE International, 400TP: (724) 772-4008 TF: (724) 776-1830 E-mail: [mjena@sae.org](mailto:mjena@sae.org)**Session Title:** Light Duty Clean Diesel Technologies

Please use the spaces below to provide details concerning your session. **INFORMATION SHOULD BE COMPLETE FOR EACH**

**PARTICIPANT:** this information will be used to email presenter info, prepare the printed program and all other communication with the speakers. **Please Note:** Session Participant Information need only come from you if SAE has not been notified of the participation. In all other cases, participants will send in their own information.

**Session Description:** This session will explore new technologies for light-duty diesels and the technological hurdles and marketing strategies that are underway to gain consumer acceptance for diesel engines. Vehicle manufacturers will reveal their plans on introducing diesel engines to the U.S. market.

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Please Note: Session Participant Information need only come from you if SAE has not been notified of the participation. In all other cases, participants will send in their own information.

## SESSION PARTICIPANTS

List papers, panelists, authors and co-authors in the order you wish them to appear in the program.

**CHECK ONE:**    ☐ **Panelist** (proceed to "Main Author/Speaker" information)

**Technical Paper:**   ☒ **Oral Only Presentation**

**PAPER TITLE:** Upcoming Volkswagen Models with Clean Diesel Technology

**MAIN AUTHOR / SPEAKER:** This person will give the talk, appear first in the program listing, and receive all correspondence.

### Presenting Author or Panelist (1)

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Job Title   General Manager, Engineering & Environmental Office

Company   Volkswagen Group of America, Inc.

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## ADDITIONAL PARTICIPANTS

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| City               |         |             |
| State              | Country | Postal Code |
| Phone              |         |             |
| Fax                |         |             |
| Email              |         |             |

Revised Friday, February 29, 2008

**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**From:** "Hart, Robert (VWoA)"  
**Sent:** Wed 3/19/2008 6:07:27 PM  
**Subject:** MY 2006 Volkswagen VIN Decoder  
[06VW VIN.pdf](#)  
<mailto:robert.hart@vw.com>

Hello Lynn,

Bruce Sdunek asked me to send this VIN Decoder to you.

Best regards,

Bob Hart

Robert Hart

Emissions & Regulatory Analyst

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: 248 754 4224

Fax: 248 754 4207

<mailto:robert.hart@vw.com>

**To:** Lynn Sohacki/AA/USEPA/US@EPA[]

**Cc:** Ex. 7

**Ex. 7**

**From:** Ex. 7

**Sent:** Mon 3/24/2008 6:58:26 PM

**Subject:** Test Parameters For EPA In-Use Surveillance Test Program - Engine Family  
6AD XV02.0366  
[L-150.pdf](#)

Ex. 7

<http://www.vw.com>

<http://www.audiusa.com>

<mailto:Sohacki.Lynn@epamail.epa.gov>

Hello Lynn,

Please find below the test information and parameters for the upcoming EPA In-Use Surveillance Test Program -Eng. Fam. 6AD XV02.0366:

Lab: NVFEL Ann Arbor, Michigan  
Engine Family: 6AD XV02.0366  
Estimated Start Date: Week-ending April 18, 2008  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-150/L-151 (low-mileage / high-mileage)

- General Test Group Information:

Engine Fam.: 6AD XV02.0366  
Concept: 2.0L / I4 (TFSI)  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 200 hp  
Models in TG: Jetta-Sedan, Golf/GTI, Passat-Sedan, AUDI-A3  
EVAP Fam.: 6AD XR0110238, 6AD XR0125246  
EVAP Standard: C2  
# of sold vehicles in TG: 85,432

- General Vehicle Group Information:

- Jetta-Sedan, Golf/GTI, AUDI-A3:

|                       |       |                            |
|-----------------------|-------|----------------------------|
| Tank Capacity 100%    | [l]   | 55.0 [l]                   |
| Tank Capacity 40%     | [l]   | 22.0 [l]                   |
| Tank Capacity 100%    | [gal] | 14.53 [gal]                |
| Tank Capacity 40%     | [gal] | 5.81 [gal]                 |
| Canister Working Cap. | [g]   | 110 [g]                    |
| Standard Tire Size    |       | 205/55 R16                 |
| Axle Ratio            |       | 3.136(L6/2) / 3.087 (M6/2) |

|                         |            |             |                        |
|-------------------------|------------|-------------|------------------------|
| Target road-load coef.  | 35.07 (F0) | 0.1809 (F1) | 0.0181 (F2) - for L6/2 |
| (Jetta-Sedan, Golf/GTI) | 30.12 (F0) | 0.1954 (F1) | 0.0186 (F2) - for M6/2 |

|                        |            |             |                        |
|------------------------|------------|-------------|------------------------|
| Target road-load coef. | 32.37 (F0) | 0.0535 (F1) | 0.0200 (F2) - for L6/2 |
| (AUDI-A3)              | 31.02 (F0) | 0.1520 (F1) | 0.0200 (F2) - for M6/2 |

- Passat-Sedan:

|                           |   |
|---------------------------|---|
| Tank Capacity 100% [l]    | 70.0 [l] - Passat-Sedan                       |
| Tank Capacity 40% [l]     | 28.0 [l] - Passat-Sedan                       |
| Tank Capacity 100% [gal]  | 18.49 [gal] - Passat-Sedan                    |
| Tank Capacity 40% [gal]   | 7.40 [gal] - Passat-Sedan                     |
| Canister Working Cap. [g] | 125 [g] - Passat-Sedan                        |
| Standard Tire Size        | 215/55 R16                                    |
| Axle Ratio                | 3.201 (L6/2) / 3.087 (M6/2)                   |
| Target road-load coef.    | 35.07 (F0) 0.5065 (F1) 0.0140 (F2) - for L6/2 |
|                           | 33.72 (F0) 0.1339 (F1) 0.0179 (F2) - for M6/2 |

If you have any questions or need extra information for the procured vehicles please don't hesitate to contact me.

Thank you and best regards,

**Ex. 7**

<http://www.vw.com>  
<http://www.audiusa.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Monday, March 24, 2008 8:48 AM

To: **Ex. 7**

Subject: Notification of EPA In-use Surveillance Testing

Attached is our letter announcing an EPA in-use testing class. Please let me know if you have any questions.

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

(See attached file: L-150.pdf) <<L-150.pdf>>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY  
2565 PLYMOUTH ROAD  
ANN ARBOR, MICHIGAN 48105-2498

March 20, 2008

OFFICE OF  
AIR AND RADIATION

Mr. Dennis Reineke  
Volkswagen of America  
3800 Hamlin Rd.,  
Auburn Hills, MI  
48326

Dear Mr. Reineke,

The Environmental Protection Agency will test a 2006 model-year Audi test-group in our surveillance test-program. The group shown in Enclosure 1 will be tested at the National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan. Test results which exceed applicable standards may lead to confirmatory testing.

A sample of three or more vehicles will be procured. Maintenance will consist of an under-hood inspection and review of on-board computer codes. The federal test procedure will follow a single LA-4 preconditioning cycle.

Please provide test parameters prior to the class start-date noted below, including shift schedules used during certification of this test-group. Also provide the appropriate target and set road-load coefficients for each vehicle in this test-group. ***If this test-group contains models which are equipped with 4WD, AWD or traction-control, please indicate the easiest method to facilitate testing on a 2WD dynamometer.*** Also indicate the easiest and safest method to drain the fuel-tank.

One vehicle may be subjected to evaporative testing. Additionally, fault conditions may be introduced into one or more of the vehicles to test the response of the On-Board Diagnostics (OBD) system. If you are aware of OBD enabling criteria which would limit our ability to evaluate these systems, please inform me. Copies of the OBD enabling criteria which were approved during certification should be provided if there are such limitations.

We invite your representatives to be present as observers during the test program. If you have any questions concerning this investigation please contact me.

Sincerely,

Lynn Sohacki  
Compliance and Innovative Strategies Division

Enclosure



Printed on Recycled Paper

ENCLOSURE 1

Lab

NVFEL  
Ann Arbor, Michigan

Engine Family

6AD XV02.0366

Estimated Start Date

Week-ending April 18, 2008

Recall/Testing Representative

Lynn Sohacki

Telephone Number

(734) 214- 4851

E-mail address

Sohacki.lynn@epa.gov

Class Numbers

L-150/L-151 (low-mileage / high-mileage)

**To:** "Hart, Robert (VWoA)" [Robert.Hart@vw.com]  
**Cc:** []  
**Bcc:** []  
**From:** CN=Lynn Sohacki/OU=AA/O=USEPA/C=US  
**Sent:** Fri 3/28/2008 2:40:39 PM  
**Subject:** Re: MY 2006 Volkswagen VIN Decoder  
[06VW VIN.pdf](#)  
<mailto:robert.hart@vw.com>

Thanks, Bob. This was very helpful. Would it also be possible to get one for MY 2005?

Thanks a lot!

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Hart, Robert (VWoA)" <Robert.Hart@vw.com>  
Sent by: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>  
Received Date:  
03/19/2008 02:07 PM  
Transmission Date:  
03/19/2008 02:07:27 PM  
To Lynn Sohacki/AA/USEPA/US@EPA  
cc  
Subject MY 2006 Volkswagen VIN Decoder

Hello Lynn,

Bruce Sdunek asked me to send this VIN Decoder to you.

Best regards,

Bob Hart

Robert Hart  
Emissions & Regulatory Analyst  
Engineering and Environmental Office

Volkswagen Group of America, Inc.  
3800 Hamlin Road  
Auburn Hills, MI 48326

Phone: 248 754 4224  
Fax: 248 754 4207  
<mailto:robert.hart@vw.com>





**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**From:** "Hart, Robert (VWoA)"  
**Sent:** Fri 3/28/2008 2:46:07 PM  
**Subject:** MY 2005 VIN Decoder ---- RE: MY 2006 Volkswagen VIN Decoder  
[05VW VIN.pdf](#)

Hello Lynn,

The MY 2005 VIN decoder is attached.

Best regards,

Bob Hart

Robert Hart  
Emissions & Regulatory Analyst  
Engineering and Environmental Office

Volkswagen Group of America, Inc.  
3800 Hamlin Road  
Auburn Hills, MI 48326

Phone: 248 754 4224  
Fax: 248 754 4207  
<mailto:robert.hart@vw.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [<mailto:Sohacki.Lynn@epamail.epa.gov>]

Sent: Friday, March 28, 2008 10:41 AM  
To: Hart, Robert (VWoA)  
Subject: Re: MY 2006 Volkswagen VIN Decoder

Thanks, Bob. This was very helpful. Would it also be possible to get one for MY 2005?

Thanks a lot!

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Hart, Robert  
(VWoA)"  
<[Robert.Hart@vw.com](mailto:Robert.Hart@vw.com)>  
Sent by: "Hart,  
Robert (VWoA)"

To  
Lynn Sohacki/AA/USEPA/US@EPA  
cc

<Robert.Hart@vw.  
com> Subject  
MY 2006 Volkswagen VIN Decoder

Received Date:  
03/19/2008 02:07  
PM  
Transmission  
Date:  
03/19/2008  
02:07:27 PM

Hello Lynn,

Bruce Sdunek asked me to send this VIN Decoder to you.

Best regards,

Bob Hart

Robert Hart  
Emissions & Regulatory Analyst  
Engineering and Environmental Office

Volkswagen Group of America, Inc.  
3800 Hamlin Road  
Auburn Hills, MI 48326

Phone: 248 754 4224  
Fax: 248 754 4207  
mailto:robert.hart@vw.com

(See attached file: 06VW\_VIN.pdf)

**To:** "Hart, Robert (VWoA)" [Robert.Hart@vw.com]  
**Cc:** []  
**Bcc:** []  
**From:** CN=Lynn Sohacki/OU=AA/O=USEPA/C=US  
**Sent:** Fri 3/28/2008 2:53:00 PM  
**Subject:** Thank you!! MY 2005 VIN Decoder

Have a great weekend!

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Hart, Robert (VWoA)" <Robert.Hart@vw.com>  
Sent by: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>  
Received Date:  
03/28/2008 10:46 AM  
Transmission Date:  
03/28/2008 10:46:07 AM  
To Lynn Sohacki/AA/USEPA/US@EPA  
cc  
Subject MY 2005 VIN Decoder ---- RE: MY 2006 Volkswagen VIN Decoder

Hello Lynn,

The MY 2005 VIN decoder is attached.

Best regards,

Bob Hart

Robert Hart  
Emissions & Regulatory Analyst  
Engineering and Environmental Office

Volkswagen Group of America, Inc.  
3800 Hamlin Road  
Auburn Hills, MI 48326

Phone: 248 754 4224  
Fax: 248 754 4207  
mailto:robert.hart@vw.com

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Friday, March 28, 2008 10:41 AM

To: Hart, Robert (VWoA)

Subject: Re: MY 2006 Volkswagen VIN Decoder

Thanks, Bob. This was very helpful. Would it also be possible to get one for MY 2005?

Thanks a lot!

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Hart, Robert  
(VWoA)"  
<Robert.Hart@vw. To  
com> Lynn Sohacki/AA/USEPA/US@EPA  
Sent by: "Hart, cc  
Robert (VWoA)"  
<Robert.Hart@vw. Subject  
com> MY 2006 Volkswagen VIN Decoder

Received Date:  
03/19/2008 02:07  
PM  
Transmission  
Date:  
03/19/2008  
02:07:27 PM

Hello Lynn,

Bruce Sdunek asked me to send this VIN Decoder to you.

Best regards,

Bob Hart

Robert Hart  
Emissions & Regulatory Analyst  
Engineering and Environmental Office

Volkswagen Group of America, Inc.  
3800 Hamlin Road

Auburn Hills, MI 48326

Phone: 248 754 4224

Fax: 248 754 4207

mailto:robert.hart@vw.com

(See attached file: 06VW\_VIN.pdf)

[attachment "05VW\_VIN.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

**To:** Lynn Sohacki/AA/USEPA/US@EPA; Bernd Liebner/AA/USEPA/US@EPA; JohnH White/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA; JohnH White/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ohnH White/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA[]

**Cc:** Ex. 7

Ex. 7

**From:** Ex. 7

**Sent:** Thur 4/10/2008 8:25:56 PM

**Subject:** Test Parameters For EPA In-Use Surveillance Test Program - Engine Family  
6AD XV02.0366 / veh# L151RXX-0135  
# TEST-PARAMETERS 6AD XV02.0366 080410.xls

**Ex. 7**

<http://www.vw.com>  
<http://www.vw.com/>  
<http://www.audiusa.com>  
<http://www.audiusa.com/>

Ladies and Gentlemen,

Please find below the test information and parameters for the vehicle to be tested within the current EPA In-Use Surveillance Test Program - Eng. Fam. 6AD XV02.0366:

Lab: NVFEL Ann Arbor, Michigan  
Engine Family: 6AD XV02.0366  
Estimated Start Date: Week-ending April 18, 2008  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-150/L-151 (low-mileage / high-mileage)

- General Test Group Information:

Engine Fam.: 6AD XV02.0366  
Concept: 2.0L / I4 (TFSI)  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 200 hp  
Models in TG: Jetta-Sedan, Golf/GTI, Passat-Sedan, AUDI-A3  
EVAP Fam.: 6AD XR0110238, 6AD XR0125246  
EVAP Standard: C2  
# of sold vehicles in TG: 85,432

- General Vehicle Group Information:

- Jetta-Sedan, Golf/GTI, AUDI-A3:

|                    |       |             |
|--------------------|-------|-------------|
| Tank Capacity 100% | [l]   | 55.0 [l]    |
| Tank Capacity 40%  | [l]   | 22.0 [l]    |
| Tank Capacity 100% | [gal] | 14.53 [gal] |
| Tank Capacity 40%  | [gal] | 5.81 [gal]  |

|                           |                            |             |                        |
|---------------------------|----------------------------|-------------|------------------------|
| Canister Working Cap. [g] | 110 [g]                    |             |                        |
| Standard Tire Size        | 205/55 R16                 |             |                        |
| Axle Ratio                | 3.136(L6/2) / 3.087 (M6/2) |             |                        |
| Target road-load coef.    | 35.07 (F0)                 | 0.1809 (F1) | 0.0181 (F2) - for L6/2 |
| (Jetta-Sedan, Golf/GTI)   | 30.12 (F0)                 | 0.1954 (F1) | 0.0186 (F2) - for M6/2 |
| Target road-load coef.    | 32.37 (F0)                 | 0.0535 (F1) | 0.0200 (F2) - for L6/2 |
| (AUDI-A3)                 | 31.02 (F0)                 | 0.1520 (F1) | 0.0200 (F2) - for M6/2 |

- Passat-Sedan:

|                           |   |
|---------------------------|---|
| Tank Capacity 100% [l]    | 70.0 [l] - Passat-Sedan                       |
| Tank Capacity 40% [l]     | 28.0 [l] - Passat-Sedan                       |
| Tank Capacity 100% [gal]  | 18.49 [gal] - Passat-Sedan                    |
| Tank Capacity 40% [gal]   | 7.40 [gal] - Passat-Sedan                     |
| Canister Working Cap. [g] | 125 [g] - Passat-Sedan                        |
| Standard Tire Size        | 215/55 R16                                    |
| Axle Ratio                | 3.201 (L6/2) / 3.087 (M6/2)                   |
| Target road-load coef.    | 35.07 (F0) 0.5065 (F1) 0.0140 (F2) - for L6/2 |
|                           | 33.72 (F0) 0.1339 (F1) 0.0179 (F2) - for M6/2 |

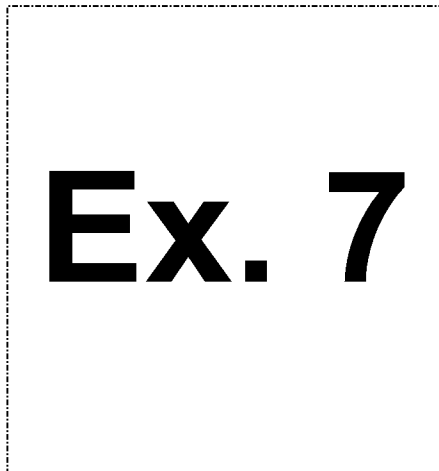
- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet  
<<#\_TEST-PARAMETERS\_6AD XV02.0366\_080410.xls>>
- VIN Specific Information:

(1) (2006 VW Passat) -- vehicle inspection scheduled for 4/16/08 (Wednesday)

|                  |                            |
|------------------|----------------------------|
| VIN:             | Ex. 6                      |
| Make/Model:      | VLK / PAS / Passat B6 2.0T |
| Model Code:      | 3C25K6                     |
| Exterior Color:  | DEEP BLACK                 |
| Prod Date:       | 07/15/2005                 |
| In Service Date: | 11/14/2005                 |
| Engine#:         | BPY 019197                 |
| Vehicle Source:  | Europe                     |

In case of any questions or need of additional information, please don't hesitate to contact me.

Best regards,



mailto:

**Ex. 7**

<http://www.vw.com> <<http://www.vw.com/>>

<http://www.audiusa.com> <<http://www.audiusa.com/>>



## Test Parameters For EPA In-Use Surveillance Test Program L-150 / L-151 (6ADXV02.0366)

**Engine Fam.:** 6ADXV02.0366  
**Concept:** 2.0L / I4 (TFSI)  
**Em. Standard:** ULEV II - BIN 5  
**Sales Area:** 50 States / Canada  
**Engine HP:** 200 hp  
**Engine Code:** BPY  
**Models in TG:** Jetta-Sedan, Golf/GTI, Passat-Sedan, AUDI-A3  
**EVAP Fam.s in TG:** 6ADXR0110238, 6ADXR0125246  
**EVAP Standard:** C2  
**# of sold vehicles in TG:** 85,432

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description          | VIN          | Body Type | Trim Level | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|----------------------------|--------------|-----------|------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | <b>Ex. 6</b> | Sedan     | 2.0T       | 3,389             | 3,750     | 35.07                | 0.5065                     | 0.0140                         | 215/55 R16 | 44,468                       |
|                                   |                 |                            |              |           |            |                   |           |                      |                            |                                |            |                              |
|                                   |                 |                            |              |           |            |                   |           |                      |                            |                                |            |                              |
|                                   |                 |                            |              |           |            |                   |           |                      |                            |                                |            |                              |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description          | Body Type | Trim Level | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|----------------------------|-----------|------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | L6/2              | AQ250-6F          | 3.201      | FTA                             | HWA                             | US6A                             |
|                                   |                 |                            |           |            |                   |                   |            |                                 |                                 |                                  |
|                                   |                 |                            |           |            |                   |                   |            |                                 |                                 |                                  |
|                                   |                 |                            |           |            |                   |                   |            |                                 |                                 |                                  |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description          | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|----------------------------|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | 70                     | 28                    | 18.49                    | 7.40                    | 125                           |

**To:** Ex. 7  
**Cc:** CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=David Good/OU=AA/O=USEPA/C=US@EPA[]; N=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=David Good/OU=AA/O=USEPA/C=US@EPA[]; N=David Good/OU=AA/O=USEPA/C=US@EPA[]  
**From:** CN=Chris Nevers/OU=AA/O=USEPA/C=US  
**Sent:** Mon 4/21/2008 7:44:35 PM  
**Subject:** Fw: Diesel SCR exhaust system information

Dear Ex. 7

I realize you may not yet have all the information regarding the questions EPA posed, below. In the interest of time, it would be helpful if you could share the catalyst configurations, material (e.g. what type of base metal zeolite SCR cat), and when you planned on certifying SCR systems. Temperature profiles and exact exhaust lay-out are really a secondary to the big picture of quantifying possible dioxin formation or excessive ammonia slip.

I'd like to thank you in advance for your patience as we try to determine a position on the unregulated emission of dioxins and ammonia. EPA will be asking the same questions of several manufacturers that are planning on certifying vehicles using SCR technology.

Thanks again, and any questions are welcome

Chris Nevers  
734 214 4412

----- Forwarded by Chris Nevers/AA/USEPA/US on 04/21/2008 03:41 PM -----

Chris Nevers/AA/USEPA/US  
EPA-OAR,OTAC,CISD  
Sent by: Chris Nevers  
Received Date:  
04/10/2008 01:32 PM  
Transmission Date:  
04/10/2008 01:32:07 PM  
**To:** Ex. 7  
**cc:** Vincent Mazaitis/AA/USEPA/US@EPA, David Good/AA/USEPA/US@EPA  
**Subject:** Diesel SCR exhaust system information

Dear Ex. 7

In evaluating possible unregulated emissions, EPA is requesting some information regarding current and/or planned diesel exhaust systems using selective catalytic reduction. On any current or planned SCR system. could you please provide EPA with the following?

- 1- The distance, in cm, each catalyst and/or filter is down-pipe from the exhaust manifold.
- 2- The distance, in cm, each exhaust sensor and/or aftertreatment fluid injector is down-pipe from the exhaust manifold.

3- What is the expected maximum temperature (both steady state and excursion) each catalyst/filter will experience? If this is only during a regen, please also give the maximum non-regen temperatures.

4- Indicate what, if any, base metal zeolite is used.

As always, all information will be treated as confidential.

Please feel free to call or email me with any questions.

Thank you,

Chris Nevers  
EPA Light Duty Vehicle Group  
734 214 4412

**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**Cc:** Bernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA; **Ex. 7**  
**Ex. 7** Bruce Garrison/AA/USEPA/US@EPA; **Ex. 7**  
**Ex. 7**  
**From:** **Ex. 7**  
**Sent:** Mon 4/28/2008 7:32:45 PM  
**Subject:** Test Parameters For EPA In-Use Surveillance Test Program - Engine Family  
6AD XV02.0366 / veh# L150RXX-0463  
21 (00 SUMMARY) MI 6AD XV02.0366 WVVAK73C86P204235.xls  
<mailto:> **Ex. 7**  
<mailto:>  
<http://www.vw.com>  
<http://www.vw.com/>  
<http://www.audiusa.com>  
<http://www.audiusa.com/>

Hello Lynn,

Please find below the test information and parameters for the 2nd vehicle to be tested within the current EPA In-Use Surveillance Test Program -Eng. Fam. 6AD XV02.0366:

Lab: NVFEL Ann Arbor, Michigan  
Engine Family: 6AD XV02.0366  
Estimated Start Date: Week-ending April 18, 2008  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-150/L-151 (low-mileage / high-mileage)

- General Test Group Information:

Engine Fam.: 6AD XV02.0366  
Concept: 2.0L / I4 (TFSI)  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 200 hp  
Models in TG: Jetta-Sedan, Golf/GTI, Passat-Sedan, AUDI-A3  
EVAP Fam.: 6AD XR0110238, 6AD XR0125246  
EVAP Standard: C2  
# of sold vehicles in TG: 85,432

- General Vehicle Group Information:

- Jetta-Sedan, Golf/GTI, AUDI-A3:

|                       |       |             |
|-----------------------|-------|-------------|
| Tank Capacity 100%    | [l]   | 55.0 [l]    |
| Tank Capacity 40%     | [l]   | 22.0 [l]    |
| Tank Capacity 100%    | [gal] | 14.53 [gal] |
| Tank Capacity 40%     | [gal] | 5.81 [gal]  |
| Canister Working Cap. | [g]   | 110 [g]     |
| Standard Tire Size    |       | 205/55 R16  |

|   |                            |                            |  |
|---|----------------------------|----------------------------|--|
| Axle Ratio  | 3.136(L6/2) / 3.087 (M6/2) |                            |  |
| Target road-load coef.<br>(Jetta-Sedan, Golf/GTI) | 35.07 (F0)<br>30.12 (F0)   | 0.1809 (F1)<br>0.1954 (F1) | 0.0181 (F2) - for L6/2<br>0.0186 (F2) - for M6/2 |
| Target road-load coef.<br>(AUDI-A3)               | 32.37 (F0)<br>31.02 (F0)   | 0.0535 (F1)<br>0.1520 (F1) | 0.0200 (F2) - for L6/2<br>0.0200 (F2) - for M6/2 |

- Passat-Sedan:

|                        |       |  |
|------------------------|-------|--|
| Tank Capacity 100%     | [l]   | 70.0 [l] - Passat-Sedan  |
| Tank Capacity 40%      | [l]   | 28.0 [l] - Passat-Sedan  |
| Tank Capacity 100%     | [gal] | 18.49 [gal] - Passat-Sedan   |
| Tank Capacity 40%      | [gal] | 7.40 [gal] - Passat-Sedan  |
| Canister Working Cap.  | [g]   | 125 [g] - Passat-Sedan   |
| Standard Tire Size     |       | 215/55 R16   |
| Axle Ratio             |       | 3.201 (L6/2) / 3.087 (M6/2)  |
| Target road-load coef. |       | 35.07 (F0) 0.5065 (F1) 0.0140 (F2) - for L6/2<br>33.72 (F0) 0.1339 (F1) 0.0179 (F2) - for M6/2 |

- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet  
<<21\_(00\_SUMMARY)\_Ex. 6s>>
- VIN Specific Information:

(1) (2006 VW Passat) -- vehicle inspection scheduled for 05/01/08 (Wednesday)

|                  |                            |
|------------------|----------------------------|
| VIN:             | Ex. 6                      |
| Make/Model:      | VLK / PAS / Passat B6 2.0T |
| Model Code:      | 3C25K6                     |
| Exterior Color:  | REFLEX SILVER METALLIC     |
| Prod Date:       | 07/15/2005                 |
| In Service Date: | 11/14/2005                 |
| Engine#:         | BPY 086225                 |
| Vehicle Source:  | Europe                     |

In case of any questions or need of information, please don't hesitate to contact me.

Best regards,



<http://www.vw.com> <<http://www.vw.com/>>

<http://www.audiusa.com> <<http://www.audiusa.com>>

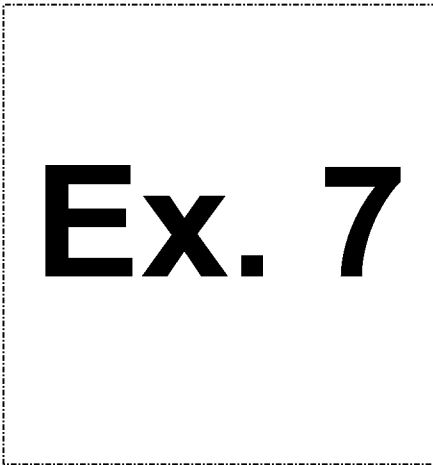
**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**Cc:** Ex. 7  
**From:** Ex. 7  
**Sent:** Wed 5/14/2008 5:11:12 PM  
**Subject:** RE: Owners manual  
Maintenance Manual MY2005.pdf

Hello Lynn,

Attached you can find a copy of the Maintenance-Manual for owners - MY2005.

If you need anything else, please let me know.

Have a nice day,



<http://www.vw.com>  
<http://www.audiusa.com>

-----Original Message-----

**From:** Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

**Sent:** Wednesday, May 14, 2008 8:08 AM

**To:** Ex. 7

**Subject:** Owners manual

Hi, Ex. 7

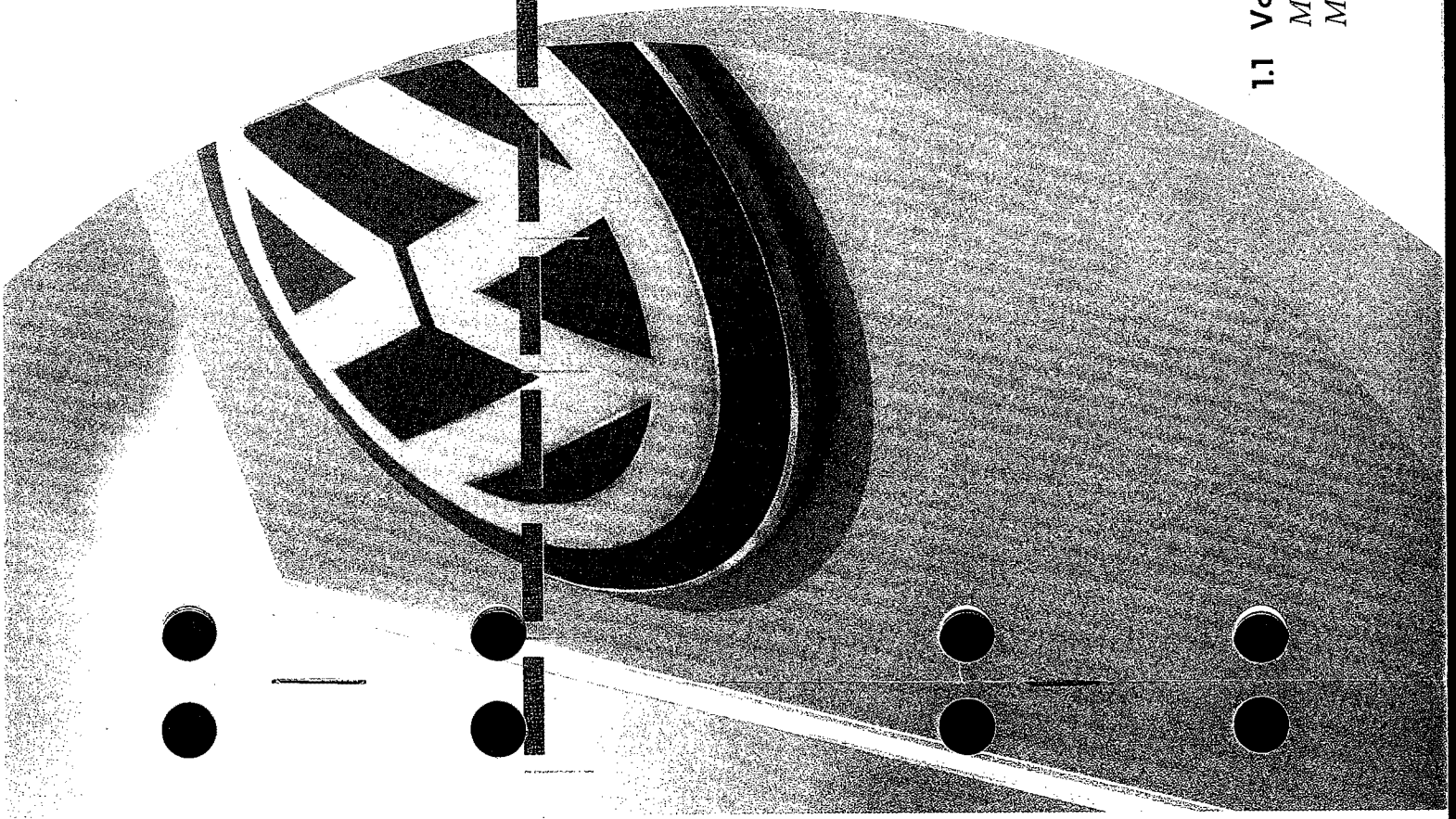
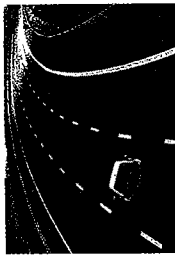
I am just asking again about the owners manual for the confirmatory class. Actually, all I need is the information on oil changes and periodic maintenance. If it would be possible to fax those pages to me, that would suffice.

Thanks.

Lynn Sohacki  
Environmental Protection Agency

(734)214-4851  
(734)214-4869 fax





**1.1 Volkswagen**  
*Maintenance*  
*Model year 2005*

1.1 Golf | Maintenance | Art. - Nr.: 251.BR3.GOA.20  
Closing date: 06.2004 | Edition: English 07.2004

Present this voucher to an authorized dealer if warranty service is required.

Stamp of authorized  
Volkswagen Dealer

TABLE OF CONTENTS

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Vehicle Identification Label ..... previous pages

Service Information

Dealer Service ..... 3  
Do-It-Yourself Service ..... 3  
Emission Control Maintenance ..... 4  
Why Service? ..... 4

When do I bring my car in for service?

1.8L Turbo or 2.8L V6 Gasoline Engines

If your car has a 1.8L Turbo or 2.8L V6 Gasoline engine,  
then this is your Service Schedule ..... 5

2.0L, 2.8L VR 6 , VR 6 4-Valve, 4.0L W8, 3.2L VR6, 4.2L V8,  
6.0L W12 Gasoline Engines or 1.9L, 2.0L or 5.0L V10 TDI  
Diesel Engines

If your car has a 2.0L, 2.8L VR6, 4.0L W8, 3.2L VR6, 4.2L V8 and 6.0L W12  
Gasoline engine  
or a 1.9L, 2.0L or 5.0L TDI-PD Diesel engine, then this is  
your Service Schedule ..... 6 - 7

If you are not sure when to bring your car in for service, ask  
your authorized Volkswagen Service Advisor.

Service Schedule

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Service Schedule ..... 8 - 25

Brake Fluid Replacement Record

Brake Fluid Replacement Record ..... 26 - 27

Dealer Service

There are nearly 800 authorized Volkswagen dealers in North America. They have Volkswagen trained technicians, proper workshop equipment and parts to give you expert service.

Volkswagen dealers are committed to quality service.

- Your authorized Volkswagen dealer offers many services for your convenience, such as extended service hours, early bird service, body repairs, to name just a few. Ask about them.
- Arrange your service with your dealer when it is convenient for you.
- Ask your Service Advisor about the service you need and discuss the cost involved.
- Leave word where you can be reached during the day and when you would like to pick your car up.
- Keep all receipts of maintenance and repairs performed. Your service record is important when making use of your warranty.
- Maintenance services performed by your authorized dealer at the intervals specified, will also be documented in this booklet.
- Automobile technology changes continuously. Your authorized Volkswagen dealer always has the most current Service and Maintenance information for your Volkswagen model. It is possible that this information may differ from the check points listed in this booklet. Your Volkswagen Service Advisor can answer any questions you may have.

Do-It-Yourself Service

Your Owner's Manual contains many helpful hints on what you can service yourself.

- You can check tires for wear or damage and correct tire pressure, including the spare.
  - You can check the windshield washer container.
  - You can check your car's interior and exterior lighting system for correct functioning.
  - You can check the engine oil level with every fuel filling.
  - You can perform these simple checks once a week.
- They save time, trouble and expense later.

**Your technician will not check the above mentioned items in each case during regular service and maintenance visits.**

## SERVICE INFORMATION

### Emission Control Maintenance

- 1 - A clean environment is of concern to all of us. Volkswagen has built into your vehicle an efficient emission control system, using genuine Volkswagen parts, in conformance with the Federal Clean Air Act in the United States and Canadian Emission Standards, respectively. To help keep our air clean, you can do your part by providing regular maintenance for the emission control system in your vehicle.
- 2 - **Maintenance, repair or replacement of emission control components may be performed by any qualified automotive service and repair establishment or individual without affecting the Emission Control System Warranty, provided that such repairs are performed to manufacturer's specifications, and that replacement parts are at least equivalent to genuine Volkswagen parts in emission performance and durability. Warranty repairs and replacements, however, must be performed by an authorized Volkswagen dealer.**
- 3 - If other than genuine Volkswagen replacement parts are used, the owner should make sure that such parts are warranted by their manufacturer and that they are at least equivalent to genuine Volkswagen replacement parts in emission performance and durability.  
To be certain that the emission control system functions as designed, regular maintenance is necessary for all components of the vehicle which influence exhaust emissions.

### Why Service?

- An untuned engine wastes fuel.
- An un-serviced emission control system can increase pollution.
- A minor adjustment now may prevent a repair later.
- Follow the recommended maintenance schedule and make in-between checks. This way you help keep your car dependable and safe.
- The intervals shown in the table on the following pages are based on vehicles operating under normal conditions. In the case of severe conditions, such as extremely low temperatures, excessive dust etc., it is necessary for certain operations to be carried out in between the given intervals. This applies particularly to engine oil changes and the cleaning or replacing of the air cleaner filter element.
- If you have questions about how to maintain your vehicle or about your Maintenance Services, ask your authorized Volkswagen dealer.

**Authorized VOLKSWAGEN dealers are ready to serve you and are committed to quality service and customer care.**

## WHEN DO I BRING MY CAR IN FOR SERVICE?

**If your vehicle has one of these engines, then this is your Service Interval Schedule.**

**- 1.8L Turbo Gasoline Engine (Golf, GTI, Jetta, New Beetle, Passat)**

**- 2.8L V6 Gasoline Engine (Passat),**

**If you are not sure when to bring your car in for service, ask your authorized Volkswagen Service Advisor.**

|                                 |   |
|---------------------------------|---|
| <b>5,000 miles (8,000 km)</b>   | <b>Oil Change Service</b>                   |
| <b>10,000 miles (16,000 km)</b> | <b>Oil Change &amp; Maintenance Service</b> |
| <b>15,000 miles (24,000 km)</b> | <b>Oil Change Service</b>                   |
| <b>20,000 miles (32,000 km)</b> | <b>Oil Change &amp; Maintenance Service</b> |
| <b>25,000 miles (40,000 km)</b> | <b>Oil Change Service</b>                   |
| <b>30,000 miles (48,000 km)</b> | <b>Oil Change &amp; Maintenance Service</b> |
| <b>35,000 miles (56,000 km)</b> | <b>Oil Change Service</b>                   |
| <b>40,000 miles (64,000 km)</b> | <b>Oil Change &amp; Maintenance Service</b> |
| <b>45,000 miles (72,000 km)</b> | <b>Oil Change Service</b>                   |
| <b>50,000 miles (80,000 km)</b> | <b>Oil Change &amp; Maintenance Service</b> |
| <b>55,000 miles (88,000 km)</b> | <b>Oil Change Service</b>                   |
| <b>60,000 miles (96,000 km)</b> | <b>Oil Change &amp; Maintenance Service</b> |

**Services should be performed at the scheduled mileage (kilometre) intervals, or 12 months after the last Service, whichever occurs first.**

**Your Service advisor will fill in the necessary information and stamp your Maintenance booklet each time you bring in your vehicle for Service.**

**At this time, the Service advisor will also inform you when the next Service is due. Therefore, it is important that you follow the Service schedule.**

**The brake fluid must be replaced every 2 years regardless of mileage (kilometres).**

**WHEN DO I BRING MY CAR IN FOR SERVICE?**

If your vehicle has one of these engines, then refer to the Service Interval Schedule on the following page.

**Gasoline Engines**

- 2.0L Gasoline Engine (Golf, Jetta, New Beetle, Passat)
- 2.8L VR6 Gasoline Engine (Golf, GTI, Jetta)
- VR6 4-valve Gasoline Engine (Jetta)
- 4.0L W8 Gasoline Engine (Passat)
- 3.2L VR6 or 4.2L V8 Gasoline Engine (Touareg)
- 3.2L VR6 Gasoline Engine (R32)
- 4.2L V8 or 6.0L W12 Gasoline Engine (Phaeton)

**Diesel Engines**

- 1.9L TDI-PD Diesel Engine (Golf, Jetta, New Beetle),
- 2.0L TDI-PD Diesel Engine (Passat)
- 5.0L V10 TDI-PD Diesel Engine (Touareg)

**WHEN DO I BRING MY CAR IN FOR SERVICE?**

If you are not sure when to bring your car in for service, ask your authorized Volkswagen Service Advisor.

|                           |                                  |
|---------------------------|----------------------------------|
| 5,000 miles (8,000 km)    | Oil Change Service               |
| 10,000 miles (16,000 km)  | Oil Change & Maintenance Service |
| 20,000 miles (32,000 km)  | Oil Change & Maintenance Service |
| 30,000 miles (48,000 km)  | Oil Change & Maintenance Service |
| 40,000 miles (64,000 km)  | Oil Change & Maintenance Service |
| 50,000 miles (80,000 km)  | Oil Change & Maintenance Service |
| 60,000 miles (96,000 km)  | Oil Change & Maintenance Service |
| 70,000 miles (112,000 km) | Oil Change & Maintenance Service |

Services should be performed at the scheduled mileage (kilometre) intervals, or 12 months after the last Service, whichever occurs first.

Your Service Advisor will fill in the necessary information and stamp your Maintenance booklet each time you bring in your vehicle for Service.

At this time, the Service Advisor will also inform you when the next Service is due. Therefore, it is important that you follow the Service schedule.

The brake fluid must be replaced every 2 years regardless of mileage (kilometres).

**Delivery Inspection**

- Your authorized Volkswagen dealer will fill out the necessary information and stamp your Maintenance book to confirm that the necessary services have been performed.
- Automobile technology changes continuously. Your authorized Volkswagen dealer always has the most current Service and Maintenance information for your Volkswagen model. It is possible that this information may differ from the check points listed in this booklet. Your Volkswagen Service Advisor can answer any questions you may have.
- If you are not sure when to bring your car in for service, ask your authorized Volkswagen Service Advisor.

|   |   |
|---|---|
| <p><b>Delivery Inspection</b></p> <p>Before your vehicle is delivered to you, it is inspected according to factory guidelines.</p> <p>The Delivery Inspection was performed on: _____</p> |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p>   | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

**First Service at 5,000 miles (8,000 km) - ALL MODELS**

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>● Engine: Change oil and oil filter</li> <li>● Water separator: Drain water (<b><i>TDI engine only</i></b>)</li> </ul> |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p>   | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

**Service at 10,000 miles (16,000 km) - ALL MODELS**

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>● Engine: Change oil and oil filter</li> <li>● Water separator: Drain water (<b><i>TDI engine only</i></b>)</li> <li>● Windshield washer: Check fluid level, add if necessary</li> <li>● Automatic shift lock: Check operation including park/neutral position switch</li> <li>● Brake system: Check for damage/leaks, brake pad thickness, brake fluid level</li> <li>● Wheels: Rotate from front to rear</li> <li>● Rear spoiler: Lubricate (<b><i>New Beetle only</i></b>)</li> <li>● Airbag system: Visual check every 12 months regardless of mileage (kilometres)</li> <li>● 12V starter and auxiliary battery: check (<b><i>where applicable</i></b>)</li> <li>● Tires: Check tread depth, adjust tire pressure if necessary.</li> <li>● Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (<b><i>where applicable</i></b>).</li> </ul> |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p>  | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

**Service at 15,000 miles (24,000 km) - Models with a 1.8T or V6 engine ONLY.**

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>● Engine: Change oil and oil filter</li> </ul>                 |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p> | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

# SERVICE SCHEDULE

## Service at 20,000 miles (32,000 km) - ALL MODELS

- Engine: Change oil and oil filter
- Engine: Check for leaks
- Exhaust system: Check for damage and leaks
- Water separator: Drain water (**TDI engine only**)
- Fuel filter: Replace (**TDI engine only**)
- Battery: Check electrolyte level (**Passat**)
- Battery: Check (**Golf, Jetta, New Beetle**)
- Door check straps: Lubricate
- Dust and pollen filter (where applicable): Replace
- Cooling system: Check coolant level; add if necessary
- Windshield washer: Check fluid level; add if necessary
- Automatic shift lock: Check operation including park/neutral/safety switch
- Automatic transmission: Check for leaks
- Manual transmission: Check oil level; add if necessary; check for leaks
- Wheels: Rotate from front to rear
- Tires/spare wheel: Check condition and pressure
- Brake system: Check for damage/leaks, brake pad thickness and brake fluid level
- Drive shafts: Check boots
- On-Board diagnostic system: Check fault memory; purge if necessary
- Roof frame: Clean and lubricate
- Front axle: Check dust seals on ball joints and tie rod ends; check tie rods
- Headlights: Adjust
- Rear spoiler: Lubricate (**New Beetle only**)
- 12V starter and auxiliary battery: check (**where applicable**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- Road test: Check kickdown, braking, steering, heating and ventilation, air conditioning, power accessories and electrical systems
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

**Continued on next page**

# SERVICE SCHEDULE

## Service at 20,000 miles (32,000 km) - continued

|   |   |
|---|---|
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p> | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |
|---|---|

## Service at 25,000 miles (40,000 km) - Models with a 1.8T or V6 engine ONLY.

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>● Engine: Change oil and oil filter</li> </ul>                 |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p> | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

# SERVICE SCHEDULE

## Service at 30,000 miles (48,000 km) - ALL MODELS

- Engine: Change oil and oil filter
- Water separator: Drain water (**TDI engine only**)
- Windshield washer: Check fluid level, add if necessary
- Automatic shift lock: Check operation including park/neutral position switch
- Brake system: Check for damage/leaks, brake pad thickness, brake fluid level
- Wheels: Rotate from front to rear
- Rear spoiler: Lubricate (**New Beetle only**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- 12V starter and auxiliary battery: check (**where applicable**)
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

### Next Service:

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp

## Service at 35,000 miles (56,000 km) - Models with a 1.8T or V6 engine ONLY.

- Engine: Change oil and oil filter

### Next Service:

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp

# SERVICE SCHEDULE

## Service at 40,000 miles (64,000 km) - ALL MODELS

- Engine: Change oil and oil filter
- Engine: Check for leaks
- Exhaust system: Check for damage and leaks
- Fuel filter: Replace (**TDI engine only**)
- Water separator: Drain (**TDI engine only**)
- Battery: Check electrolyte level (**Passat**)
- Battery: Check (**Golf, Jetta, New Beetle**)
- Door check straps: Lubricate
- V-belt: Check tension and condition; adjust if necessary
- Windshield washer: Check fluid level; add if necessary
- Automatic transmission: Check for leaks
- Manual transmission: Check oil level; add if necessary; check for leaks
- Automatic shift lock: Check operation including park/neutral/safety switch
- Automatic transmission final drive oil: Check level and for leaks; add if necessary
- Wheels: Rotate from front to rear
- Headlights: Adjust
- Tires/spare wheel: Check condition and pressure
- Brake system: Check for damage/leaks, brake pad thickness, brake fluid level
- Brake fluid: Replace every 2 years regardless of mileage (kilometres)
- Spark plugs: Replace (**except Touareg V8 and Phaeton V8**)
- Interior and exterior lights: check function
- Air suspension: check for damage/leaks (**Touareg and Phaeton**)
- Underbody: check for damage (**Touareg and Phaeton**)

**Continued on next page**



**Service at 40,000 miles (64,000 km) - continued**

- Air cleaner: Replace filter element
- Cooling system: Check coolant level; add if necessary
- Dust and pollen filter (where applicable): Replace
- Ribbed belt: Check condition
- Power Steering: Check fluid level
- Drive shafts: Check boots
- Front axle: Check dust seals on ball joints, tie rod ends; check tie rods
- On-Board diagnostic system: Check fault memory; purge if necessary
- Roof frame: Clean and lubricate
- Automatic transmission: Check ATF
- Rear spoiler: Lubricate (**New Beetle only**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- Road test: Check kickdown, braking, steering, heating and ventilation, air conditioning, power accessories and electrical systems
- 12V starter and auxiliary battery: check (**where applicable**)
- Convertible top: Check function and check roll-over protection with convertible top open (**New Beetle Convertible only**)
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

**Next Service:**

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp**Service at 45,000 miles (72,000 km) - Models with a 1.8T or V6 engine ONLY.**

- Engine: Change oil and oil filter

**Next Service:**

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp**Service at 50,000 miles (80,000 km) - ALL MODELS**

- Engine: Change oil and oil filter
- Water separator: Drain water (**TDI engine only**)
- Windshield washer: Check fluid level, add if necessary
- Automatic shift lock: Check operation including park/neutral position switch
- Brake system: Check for damage/leaks, brake pad thickness, brake fluid level
- Wheels: Rotate from front to rear
- Rear spoiler: Lubricate (**New Beetle only**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- 12V starter and auxiliary battery: check (**where applicable**)
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

**Next Service:**

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp

# SERVICE SCHEDULE

## Service at 55,000 miles (88,000 km) - Models with a 1.8T or V6 engine ONLY.

|                                     |   |
|-------------------------------------|---|
| ● Engine: Change oil and oil filter |   |
| <b>Next Service:</b>                |   |
| Date: .....                         | Today's date and<br>Volkswagen Dealer stamp |
| Miles / km: .....                   |   |
| whichever occurs first              |   |

# SERVICE SCHEDULE

## Service at 60,000 miles (96,000 km) - ALL MODELS

- Engine: Change oil and oil filter
- Engine: Check for leaks
- Exhaust system: Check for damage and leaks
- Water separator: Drain water (**TDI engine only**)
- Fuel filter: Replace (**TDI engine only**)
- Battery: Check electrolyte level (**Passat**)
- Battery: Check (**Golf, Jetta, New Beetle**)
- Door check straps: Lubricate
- Dust and pollen filter (where applicable): Replace
- Cooling system: Check coolant level; add if necessary
- Windshield washer: Check fluid level; add if necessary
- Automatic shift lock: Check operation including park/neutral/safety switch
- Automatic transmission: Check for leaks
- Manual transmission: Check oil level; add if necessary; check for leaks
- Timing belt: Check condition (**4 cylinder gasoline engine only**)
- Automatic transmission final drive: Check fluid level and for leaks
- Wheels: Rotate from front to rear
- Tires/spare wheel: Check condition and pressure
- Brake system: Check for damage/leaks, brake pad thickness and brake fluid level
- Drive shafts: Check boots
- On-Board diagnostic system: Check fault memory; purge if necessary
- Roof frame: Clean and lubricate
- Front axle: Check dust seal on ball joints and tie rods; check tie rods
- Headlights: Adjust
- Rear spoiler: Lubricate (**New Beetle only**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- Road test: Check kickdown, braking, steering, heating and ventilation, air conditioning, power accessories and electrical systems
- 12V starter and auxiliary battery: check (**where applicable**)
- Spark plugs: replace (**Touareg V8 and Phaeton V8 only**)
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

Continued on next page

Service at 60,000 miles (96,000 km) - continued

|   |   |
|---|---|
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p> | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |
|---|---|

Service at 65,000 miles (104,000 km) - Models with a 1.8T or V6 engine ONLY.

|   |   |
|---|---|
| <p>● Engine: Change oil and oil filter</p>  |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p> | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

Service at 70,000 miles (112,000 km) - ALL MODELS

|  |   |
|--|---|
| <ul style="list-style-type: none"><li>● Engine: Change oil and oil filter</li><li>● Water separator: Drain water (<b>TDI engine only</b>)</li><li>● Windshield washer: Check fluid level, add if necessary</li><li>● Automatic shift lock: Check operation including park/neutral position switch</li><li>● Brake system: Check for damage/leaks, brake pad thickness, brake fluid level</li><li>● Wheels: Rotate from front to rear</li><li>● Rear spoiler: Lubricate (<b>New Beetle only</b>)</li><li>● Airbag system: Visual check every 12 months regardless of mileage (kilometres)</li><li>● 12V starter and auxiliary battery: check (<b>where applicable</b>)</li><li>● Tires: Check tread depth, adjust tire pressure if necessary.</li><li>● Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (<b>where applicable</b>).</li></ul> |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p>  | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

Service at 75,000 miles (120,000 km) - Models with a 1.8T or V6 engine ONLY.

|   |   |
|---|---|
| <p>● Engine: Change oil and oil filter</p>  |   |
| <p><b>Next Service:</b></p> <p>Date: .....</p> <p>Miles / km: .....</p> <p>whichever occurs first</p> | <p>Today's date and<br/>Volkswagen Dealer stamp</p> |

# SERVICE SCHEDULE

## Service at 80,000 miles (128,000 km) - ALL MODELS

- Engine: Change oil and oil filter
- Engine: Check for leaks
- Exhaust system: Check for damage and leaks
- Fuel filter: Replace (**TDI engine only**)
- Water separator: Drain (**TDI engine only**)
- Battery: Check electrolyte level (**Passat**)
- Battery: Check (**Golf, Jetta, New Beetle**)
- Door check straps: Lubricate
- Spark plugs: Replace (**except Touareg V8 and Phaeton V8**)
- Air cleaner: Replace filter element
- Cooling system: Check coolant level; add if necessary
- Dust and pollen filter (where applicable): Replace
- Timing belt: Check condition (**4 cylinder gasoline engine only**)
- V-belt: Check tension and condition; adjust if necessary
- Ribbed belt: Check condition
- Timing belt: change (**Touareg V8 and Phaeton V8 only**)
- Windshield washer: Check fluid level; add if necessary
- Automatic shift lock: Check operation including park/neutral/safety switch
- Automatic transmission: Check for leaks
- Manual transmission: Check oil level; add if necessary; check for leaks

Continued on next page

# SERVICE SCHEDULE

## Service at 80,000 miles (128,000 km) - continued

- Automatic transmission final drive oil: Check level and for leaks; add if necessary
- Wheels: Rotate from front to rear
- Headlights: Adjust
- Tires/spare wheel: Check condition and pressure
- Brake system: Check for damage/leaks, brake pad thickness, brake fluid level
- Power steering: Check fluid level
- Brake fluid: Replace every 2 years regardless of mileage (kilometres)
- Drive shafts: Check boots
- Front axle: Check dust seals on ball joints, tie rod ends; check tie rods
- On-Board diagnostic system: Check fault memory; purge if necessary
- Roof frame: Clean and lubricate
- Automatic transmission: Check ATF
- Rear spoiler: Lubricate (**New Beetle only**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- Road test: Check kickdown, braking, steering, heating and ventilation, air conditioning, power accessories and electrical systems
- 12V starter and auxiliary battery: check (**where applicable**)
- Convertible top: Check function and check roll-over protection with convertible top open (**New Beetle Convertible only**)
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

### Next Service:

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp

VW FOIA, EPA  
06/20/2017  
2017-FFP\_000344

SERVICE SCHEDULE

**Service at 85,000 miles (136,000 km) - Models with a 1.8T or V6 engine ONLY.**

|                                     |   |
|-------------------------------------|---|
| ● Engine: Change oil and oil filter |   |
| <b>Next Service:</b>                |   |
| Date: .....                         |   |
| Miles / km: .....                   |   |
| whichever occurs first              | Today's date and<br>Volkswagen Dealer stamp |

**Service at 90,000 miles (144,000 km) - ALL MODELS**

|   |   |
|---|---|
| <ul style="list-style-type: none"><li>● Engine: Change oil and oil filter</li><li>● Water separator: Drain water (<b><i>TDI engine only</i></b>)</li><li>● Windshield washer: Check fluid level, add if necessary</li><li>● Automatic shift lock: Check operation including park/neutral position switch</li><li>● Brake system: Check for damage/leaks, brake pad thickness, brake fluid level</li><li>● Wheels: Rotate from front to rear</li><li>● Rear spoiler: Lubricate (<b><i>New Beetle only</i></b>)</li><li>● Airbag system: Visual check every 12 months regardless of mileage (kilometres)</li><li>● 12V starter and auxiliary battery: check (<b><i>where applicable</i></b>)</li><li>● Timing belt: Replace (<b><i>TDI engine only</i></b>)</li><li>● Tires: Check tread depth, adjust tire pressure if necessary.</li><li>● Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (<b><i>where applicable</i></b>).</li></ul> |   |
| <b>Next Service:</b>  |   |
| Date: .....   |   |
| Miles / km: .....   |   |
| whichever occurs first  | Today's date and<br>Volkswagen Dealer stamp |

SERVICE SCHEDULE

**Service at 95,000 miles (152,000 km) - Models with a 1.8T or V6 engine ONLY.**

|                                     |   |
|-------------------------------------|---|
| ● Engine: Change oil and oil filter |   |
| <b>Next Service:</b>                |   |
| Date: .....                         |   |
| Miles / km: .....                   |   |
| whichever occurs first              | Today's date and<br>Volkswagen Dealer stamp |

# Service at 100,000 miles (160,000 km) - ALL MODELS

- Engine: Change oil and oil filter
- Engine: Check for leaks
- Exhaust system: Check for damage and leaks
- Water separator: Drain water (**TDI engine only**)
- Fuel filter: Replace (**TDI engine only**)
- Battery: Check electrolyte level (**Passat**)
- Battery: Check (**Golf, Jetta, New Beetle**)
- Door check straps: Lubricate
- Dust and pollen filter (where applicable): Replace
- Cooling system: Check coolant level; add if necessary
- Windshield washer: Check fluid level; add if necessary
- Automatic shift lock: Check operation including park/neutral/safety switch
- Automatic transmission: Check for leaks
- Manual transmission: Check oil level; add if necessary; check for leaks
- Wheels: Rotate from front to rear
- Tires/spare wheel: Check condition and pressure
- Brake system: Check for damage/leaks, brake pad thickness and brake fluid level
- Drive shafts: Check boots
- On-Board diagnostic system: Check fault memory; purge if necessary
- Roof frame: Clean and lubricate
- Front axle: Check dust seals on ball joints and tie rod ends; check tie rods

Continued on next page

## Service at 100,000 miles (160,000 km) - continued

- Headlights: Adjust
- Rear spoiler: Lubricate (**New Beetle only**)
- Airbag system: Visual check every 12 months regardless of mileage (kilometres)
- Road test: Check kickdown, braking, steering, heating and ventilation, air conditioning, power accessories and electrical systems
- Timing belt: Replace (**TDI engine only**)
- 12V starter and auxiliary battery: check (**where applicable**)
- Tires: Check tread depth, adjust tire pressure if necessary.
- Tire pressure monitoring system sensors: Check battery charge, replace wheel electronics and aluminum valve if necessary (**where applicable**).

### Next Service:

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp

## Service at 105,000 miles (168,000 km) - Models with a 1.8T or V6 engine ONLY.

- Engine: Change oil and oil filter
- Timing belt and timing belt tensioning roller: Replace (**Passat 2.8L V6 5-valve engines only**)
- Timing belt and timing belt tensioning roller: Replace (**Passat, Golf, Jetta, New Beetle 1.8 T engine only**)

### Next Service:

Date: .....

Miles / km: .....

whichever occurs first

Today's date and  
Volkswagen Dealer stamp

VW FOIA, EPA  
06/20/2017  
2017-FFP\_000346

**Brake fluid replacement record**

**The brake fluid must be replaced every 2 years regardless of mileage (kilometres).**

|  |   |
|--|---|
| ● The first brake fluid replacement was performed on _____ |   |
| <b>Next Brake Fluid Replacement:</b>                       |   |
| Date: .....  | Today's date and<br>Volkswagen Dealer stamp |

|  |   |
|--|---|
| ● A brake fluid replacement was performed on _____ |   |
| <b>Next Brake Fluid Replacement:</b>               |   |
| Date: .....  | Today's date and<br>Volkswagen Dealer stamp |

|  |   |
|--|---|
| ● A brake fluid replacement was performed on _____ |   |
| <b>Next Brake Fluid Replacement:</b>               |   |
| Date: .....  | Today's date and<br>Volkswagen Dealer stamp |

**Brake fluid replacement record**

**The brake fluid must be replaced every 2 years regardless of mileage (kilometres).**

|  |   |
|--|---|
| ● The first brake fluid replacement was performed on _____ |   |
| <b>Next Brake Fluid Replacement:</b>                       |   |
| Date: .....  | Today's date and<br>Volkswagen Dealer stamp |

|  |   |
|--|---|
| ● A brake fluid replacement was performed on _____ |   |
| <b>Next Brake Fluid Replacement:</b>               |   |
| Date: .....  | Today's date and<br>Volkswagen Dealer stamp |

|  |   |
|--|---|
| ● A brake fluid replacement was performed on _____ |   |
| <b>Next Brake Fluid Replacement:</b>               |   |
| Date: .....  | Today's date and<br>Volkswagen Dealer stamp |

**To:** Lynn Sohacki/AA/USEPA/US@EPA; Bernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA[]  
**Cc:** "Reineke, Dennis" [Dennis.Reineke@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Kolomitz, Michael" [Michael.Kolomitz@vw.com]  
**From:** "Popa, Edward"  
**Sent:** Fri 5/16/2008 9:10:44 PM  
**Subject:** Test Parameters For EPA In-Use Surveillance Test Program - Engine Family 6AD XV02.0366 / veh# L150RXX-0611  
# TEST-PARAMETERS 6AD XV02.0366\_080410.xls  
<mailto:edward.popa@audi.com>  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.vw.com/>  
<http://www.audiusa.com>  
<http://www.audiusa.com/>

Ladies and Gentlemen,

Please find below the test information and parameters for the vehicle to be tested within the current EPA In-Use Surveillance Test Program -Eng. Fam. 6AD XV02.0366:

Lab: NVFEL Ann Arbor, Michigan  
Engine Family: 6AD XV02.0366  
Estimated Start Date: Week-ending April 18, 2008  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-150/L-151 (low-mileage / high-mileage)

- General Test Group Information:

Engine Fam.: 6AD XV02.0366  
Concept: 2.0L / I4 (TFSI)  
Em. Standard: ULEV II - BIN 5  
Sales Area: 50 States / Canada  
Engine HP: 200 hp  
Models in TG: Jetta-Sedan, Golf/GTI, Passat-Sedan, AUDI-A3  
EVAP Fam.: 6ADXR0110238, 6ADXR0125246  
EVAP Standard: C2  
# of sold vehicles in TG: 85,432

- General Vehicle Group Information:

- Jetta-Sedan, Golf/GTI, AUDI-A3:

|                       |       |             |
|-----------------------|-------|-------------|
| Tank Capacity 100%    | [l]   | 55.0 [l]    |
| Tank Capacity 40%     | [l]   | 22.0 [l]    |
| Tank Capacity 100%    | [gal] | 14.53 [gal] |
| Tank Capacity 40%     | [gal] | 5.81 [gal]  |
| Canister Working Cap. | [g]   | 110 [g]     |



|   |                            |                            |  |
|---|----------------------------|----------------------------|--|
| Standard Tire Size                                | 205/55 R16                 |                            |  |
| Axle Ratio  | 3.136(L6/2) / 3.087 (M6/2) |                            |  |
| Target road-load coef.<br>(Jetta-Sedan, Golf/GTI) | 35.07 (F0)<br>30.12 (F0)   | 0.1809 (F1)<br>0.1954 (F1) | 0.0181 (F2) - for L6/2<br>0.0186 (F2) - for M6/2 |
| Target road-load coef.<br>(AUDI-A3)               | 32.37 (F0)<br>31.02 (F0)   | 0.0535 (F1)<br>0.1520 (F1) | 0.0200 (F2) - for L6/2<br>0.0200 (F2) - for M6/2 |

- Passat-Sedan:

|                           |  |
|---------------------------|--|
| Tank Capacity 100% [l]    | 70.0 [l] - Passat-Sedan  |
| Tank Capacity 40% [l]     | 28.0 [l] - Passat-Sedan  |
| Tank Capacity 100% [gal]  | 18.49 [gal] - Passat-Sedan   |
| Tank Capacity 40% [gal]   | 7.40 [gal] - Passat-Sedan  |
| Canister Working Cap. [g] | 125 [g] - Passat-Sedan   |
| Standard Tire Size        | 215/55 R16   |
| Axle Ratio                | 3.201 (L6/2) / 3.087 (M6/2)  |
| Target road-load coef.    | 35.07 (F0) 0.5065 (F1) 0.0140 (F2) - for L6/2<br>33.72 (F0) 0.1339 (F1) 0.0179 (F2) - for M6/2 |

- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet

<<#\_TEST-PARAMETERS\_6AD XV02.0366\_080410.xls>>

- VIN Specific Information:

(3) (2006 VW Passat) -- vehicle inspection scheduled for 5/21/08 (Wednesday)

|                  |                            |
|------------------|----------------------------|
| VIN:             | <b>Ex. 6</b>               |
| Make/Model:      | VLK / PAS / Passat B6 2.0T |
| Model Code:      | 3C25K6                     |
| Exterior Color:  | REFLEX SILVER METALLIC     |
| Prod Date:       | 07/26/2005                 |
| In Service Date: | 09/30/2005                 |
| Engine#:         | BPY 023397                 |
| Vehicle Source:  | Europe                     |

In case of any questions or need of additional information, please don't hesitate to contact me.

Best regards,  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
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Tel. +1 248 754 4211  
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Fax: +1 248 754 4207  
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<http://www.vw.com> <<http://www.vw.com/>>  
<http://www.audiusa.com> <<http://www.audiusa.com/>>

## Test Parameters For EPA In-Use Surveillance Test Program L-150 / L-151 (6AD XV02.0366)

**Engine Fam.:** 6AD XV02.0366  
**Concept:** 2.0L / I4 (TFSI)  
**Em. Standard:** ULEV II - BIN 5  
**Sales Area:** 50 States / Canada  
**Engine HP:** 200 hp  
**Engine Code:** BPY  
**Models in TG:** Jetta-Sedan, Golf/GTI, Passat-Sedan, AUDI-A3  
**EVAP Fam.s in TG:** 6AD XR0110238, 6AD XR0125246  
**EVAP Standard:** C2  
**# of sold vehicles in TG:** 85,432

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description          | VIN   | Body Type | Trim Level | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|----------------------------|-------|-----------|------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Ex. 6 | Sedan     | 2.0T       | 3,389             | 3,750     | 35.07                | 0.5065                     | 0.0140                         | 215/55 R16 | 44,468                       |
| L150RXX-0463                      | 3C25K6          | VLK / PAS / Passat B6 2.0T |       | Sedan     | 2.0T       | 3,389             | 3,750     | 35.07                | 0.5065                     | 0.0140                         | 215/55 R16 | 44,468                       |
| L150RXX-0611                      | 3C25K6          | VLK / PAS / Passat B6 2.0T |       | Sedan     | 2.0T       | 3,389             | 3,750     | 35.07                | 0.5065                     | 0.0140                         | 215/55 R16 | 44,468                       |
|                                   |                 |                            |       |           |            |                   |           |                      |                            |                                |            |                              |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description          | Body Type | Trim Level | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|----------------------------|-----------|------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | L6/2              | AQ250-6F          | 3.201      | FTA                             | HWA                             | US6A                             |
| L150RXX-0463                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | L6/2              | AQ250-6F          | 3.201      | FTA                             | HWA                             | US6A                             |
| L150RXX-0611                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | L6/2              | AQ250-6F          | 3.201      | FTA                             | HWA                             | US6A                             |
|                                   |                 |                            |           |            |                   |                   |            |                                 |                                 |                                  |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description          | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|----------------------------|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | 70                     | 28                    | 18.49                    | 7.40                    | 125                           |
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | 70                     | 28                    | 18.49                    | 7.40                    | 125                           |
| L151RXX-0135                      | 3C25K6          | VLK / PAS / Passat B6 2.0T | Sedan     | 2.0T       | 70                     | 28                    | 18.49                    | 7.40                    | 125                           |

**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**Cc:** "Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Barke, Matthias" [Matthias.Barke@vw.com]  
**From:** "Popa, Edward"  
**Sent:** Mon 5/19/2008 4:34:35 PM  
**Subject:** Confirmatory Test - 5VWXV01.9236  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.audiusa.com>

Hello Lynn,

As already discussed on the phone there are two topics that I would like to double check with you.

- My understanding is that for the confirmatory test on the MY2005 1.9 TDI - engine family 5VWXV01.9236 -, 2 US06 are going to be performed on the test vehicles (desulf procedure) before the actual FTP test. This was the procedure for the vehicles tested in the surveillance program in 2007.

- Could you also please confirm that you perform the US06 on the vehicles before the precon phase. If not please let me know what is the exact procedure that you follow.

If you have any question don't hesitate to contact me.  
When you answer, please consider also my colleagues in the Cc-Field.

Thank you and have a nice day,  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI48326, U.S.A.  
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Fax: +1 248 754 4207  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.audiusa.com>

**To:** "Popa, Edward" [Edward.Popa@audi.com]  
**Cc:** "Barke, Matthias" [Matthias.Barke@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]  
**Bcc:** []  
**From:** CN=Lynn Sohacki/OU=AA/O=USEPA/C=US  
**Sent:** Fri 5/23/2008 3:39:31 PM  
**Subject:** Re: Confirmatory Test - 5VWXV01.9236  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.audiusa.com>

Hi, Edward.

I apologize for taking so long to get back to you. I want to make sure that my answer to you is correct so I want to run it past the lab managers. It has been a long time since the last confirmatory test so I want to make sure everyone is on board. I expect to get an answer to you by next week. Please excuse the delay.

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Popa, Edward" <Edward.Popa@audi.com>  
Sent by: "Popa, Edward" <Edward.Popa@audi.com>  
Received Date:  
05/19/2008 12:34 PM  
Transmission Date:  
05/19/2008 12:34:35 PM  
To Lynn Sohacki/AA/USEPA/US@EPA  
cc "Johnson, Stuart" <Stuart.Johnson@vw.com>, "Krause, Norbert (VWoA)" <Norbert.Krause@vw.com>, "Barke, Matthias" <Matthias.Barke@vw.com>  
Subject Confirmatory Test - 5VWXV01.9236

Hello Lynn,

As already discussed on the phone there are two topics that I would like to double check with you.

- My understanding is that for the confirmatory test on the MY2005 1.9 TDI - engine family 5VWXV01.9236 -, 2 US06 are going to be performed on the test vehicles (desulf procedure) before the actual FTP test. This was the procedure for the vehicles tested in the surveillance program in 2007.

- Could you also please confirm that you perform the US06 on the vehicles before the precon phase. If not please let me know what is the exact procedure that you follow.

If you have any question don't hesitate to contact me.  
When you answer, please consider also my colleagues in the Cc-Field.

Thank you and have a nice day,

Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance  
Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.audiusa.com>

**To:** "Popa, Edward" [Edward.Popa@audi.com]  
**Cc:** "Barke, Matthias" [Matthias.Barke@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]  
**Bcc:** []  
**From:** CN=Lynn Sohacki/OU=AA/O=USEPA/C=US  
**Sent:** Wed 5/28/2008 3:07:13 PM  
**Subject:** Re: Confirmatory Test - 5VWXV01.9236  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.audiusa.com>

Hi, Edward.

The following is the procedure that we will be using for the confirmatory tests:

Fuel Change  
Desulf cycle (entire US06 test, both cycles)  
Warm up (highway cycle)  
road load derivation  
prep (LA-4)  
soak (12 to 36 hours)  
FTP  
Highway  
US06

I apologize for the delay in getting this to you. Let me know if you have any further questions.

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Popa, Edward" <Edward.Popa@audi.com>  
Sent by: "Popa, Edward" <Edward.Popa@audi.com>  
Received Date:  
05/19/2008 12:34 PM  
Transmission Date:  
05/19/2008 12:34:35 PM  
To Lynn Sohacki/AA/USEPA/US@EPA  
cc "Johnson, Stuart" <Stuart.Johnson@vw.com>, "Krause, Norbert (VWoA)" <Norbert.Krause@vw.com>, "Barke, Matthias" <Matthias.Barke@vw.com>  
Subject Confirmatory Test - 5VWXV01.9236

Hello Lynn,

As already discussed on the phone there are two topics that I would like to double check with you.

- My understanding is that for the confirmatory test on the MY2005 1.9 TDI - engine family 5VW XV01.9236 -, 2 US06 are going to be performed on the test vehicles (desulf procedure) before the actual FTP test. This was the procedure for the vehicles tested in the surveillance program in 2007.

- Could you also please confirm that you perform the US06 on the vehicles before the precon phase. If not please let me know what is the exact procedure that you follow.

If you have any question don't hesitate to contact me.  
When you answer, please consider also my colleagues in the Cc-Field.

Thank you and have a nice day,  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance  
Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
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Fax: +1 248 754 4207  
<mailto:edward.popa@audi.com>  
<http://www.vw.com>  
<http://www.audiusa.com>



**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**Cc:** "Barke, Matthias" [Matthias.Barke@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]; Popa, Edward" [Edward.Popa@audi.com]  
**From:** "Krause, Norbert (VWoA)"  
**Sent:** Wed 5/28/2008 3:10:55 PM  
**Subject:** RE: Confirmatory Test - 5VWXV01.9236

Thank you, Lynn.

Norbert Krause  
Director, Engineering and Environmental Office  
Volkswagen Group of America, Inc.  
3800 Hamlin Road  
Auburn Hills, MI 48326  
United States of America  
Phone +1-248-754-4201  
Mobile +1-248-705-5626  
FAX +1-248-754-4207  
norbert.krause@vw.com

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Mittwoch, 28. Mai 2008 11:07  
To: Popa, Edward  
Cc: Barke, Matthias; Krause, Norbert (VWoA); Johnson, Stuart  
Subject: Re: Confirmatory Test - 5VWXV01.9236

Hi, Edward.

The following is the procedure that we will be using for the confirmatory tests:

Fuel Change  
Desulf cycle (entire US06 test, both cycles) Warm up (highway cycle)  
road load derivation prep (LA-4) soak (12 to 36 hours) FTP Highway  
US06

I apologize for the delay in getting this to you. Let me know if you have any further questions.

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

"Popa, Edward"  
<Edward.Popa@audi.com>  
To  
Sent by: "Popa, Edward" Lynn Sohacki/AA/USEPA/US@EPA  
cc

<Edward.Popa@audi.com> "Johnson, Stuart"  
<Stuart.Johnson@vw.com>, "Krause,  
Norbert (VWoA)"  
Received Date: <Norbert.Krause@vw.com>, "Barke,  
05/19/2008 12:34 PM Matthias" <Matthias.Barke@vw.com>  
Subject  
Transmission Confirmatory Test - 5VW XV01.9236  
Date:  
05/19/2008  
12:34:35 PM

Hello Lynn,

As already discussed on the phone there are two topics that I would like to double check with you.

- My understanding is that for the confirmatory test on the MY2005 1.9 TDI - engine family 5VW XV01.9236 -, 2 US06 are going to be performed on the test vehicles (desulf procedure) before the actual FTP test. This was the procedure for the vehicles tested in the surveillance program in 2007.

- Could you also please confirm that you perform the US06 on the vehicles before the precon phase. If not please let me know what is the exact procedure that you follow.

If you have any question don't hesitate to contact me.  
When you answer, please consider also my colleagues in the Cc-Field.

Thank you and have a nice day,  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
mailto:edward.popa@audi.com  
http://www.vw.com

<http://www.audiusa.com>

**To:** Lynn Sohacki/AA/USEPA/US@EPA;Bruce Garrison/AA/USEPA/US@EPA;Bernd Liebner/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA;Bernd Liebner/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA[]  
**Cc:** "Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Roth, Eugen (EASZ/5)" [eugen.roth@volkswagen.de]  
**From:** "Popa, Edward"  
**Sent:** Mon 6/2/2008 3:40:48 PM  
**Subject:** Test Parameters For EPA In-Use Confirmatory Test Program - Engine Family 5VWXV01.9236  
[# TEST-PARAMETERS 5VWXV01.9236 080602.xls](#)

Ladies and Gentlemen,

Please find below the test information and parameters for the three vehicles to be tested within the current EPA In-Use Confirmatory Test Program - L-001c/L-002c (Eng. Fam. 5VWXV01.9236).

VIN specific test parameters are to be find in the attached .xls spread sheet as well.

Lab: NVFEL Ann Arbor,  
Michigan  
Engine Family: 5VWXV02.5253  
Estimated Start Date: November 16, 2007  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-001c/L-002c (low mileage /  
high mileage)

- General Test Group Information:

-----  
Engine Fam.: 5VWXV01.9236  
Concept: 1.9L/I4 TDI-PD, 100 hp  
Em. Standard: BIN 10 - InT2  
Sales Area: Federal (45 States only) / Canada  
Engine HP: 100 hp  
Engine Code: BEW  
Models in TG: VW New Beetle, Golf, Jetta Sedan,  
Jetta Wagon (PQ-34)  
EVAP Fam.: n/a  
EVAP Standard: n/a  
# of sold vehicles in TG: 15,056

- General Vehicle Group Information:

-----  
Tank Capacity 100% [l] 55.0 [l]  
Tank Capacity 40% [l] 22.0 [l]  
Tank Capacity 100% [gal] 14.53 [gal]  
Tank Capacity 40% [gal] 5.81 [gal]  
Canister Working Cap. [g] n/a  
Standard Tire Size 195/65 R15  
Axle Ratio 3.491 (L5-S5) / 3.389 (M5)

- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet

-----  
- VIN Specific Information:

-----  
(1) L002RXX-0024c (2005 VW-Jetta) -- vehicle inspection scheduled for 06/04/2008 (Wednesday) at ~07:30

|                  |                  |
|------------------|------------------|
| VIN:             | <div>Ex. 6</div> |
| Make/Model:      | Jetta GLS TDI    |
| Model Code:      | 1J6534           |
| Exterior Color:  | BLACK EXTERIOR   |
| Prod Date:       | 06/11/2004       |
| In Service Date: | 09/02/2004       |
| Engine#:         | BEW 038262       |
| Vehicle Source:  | Europe           |

In case of any questions or need of additional information, please don't hesitate to contact me.

Best regards,  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
mailto:edward.popa@audi.com <mailto:edward.popa@audi.com>  
<http://www.vw.com> <<http://www.vw.com/>>  
<http://www.audiusa.com> <<http://www.audiusa.com/>>

## Test Parameters For EPA In-Use Confirmatory Test Program L-001c/L-002c (5VWXXV01.9236)

**Engine Fam.:** 5VWXXV02.5253  
**Concept:** 1.9L/I4 TDI-PD  
**Em. Standard:** BIN 10 - InT2  
**Sales Area:** Federal (45 States only) / Canada  
**Engine HP:** 100 hp  
**Engine Code:** BEW  
**Models in TG:** VW New Beetle, Golf, Jetta Sedan, Jetta Wagon (PQ-34)  
**EVAP Fam.s in TG:** n/a  
**EVAP Standard:** n/a  
**# of sold vehicles in TG:** 15,056

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN          | Body Type | Trim Level    | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|---------------------------|--------------|-----------|---------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L002RXX-0024                      | 1J6534          | VLK / JET / Jetta GLS TDI | <b>Ex. 6</b> | Wagon     | 1.9L (TDI-PD) | 3,095             | 3,375     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,869                        |
|                                   |                 |                           |              |           |               |                   |           |                      |                            |                                |            |                              |
|                                   |                 |                           |              |           |               |                   |           |                      |                            |                                |            |                              |
|                                   |                 |                           |              |           |               |                   |           |                      |                            |                                |            |                              |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN          | Body Type | Trim Level    | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|---------------------------|--------------|-----------|---------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L002RXX-0024                      | 1J6534          | VLK / JET / Jetta GLS TDI | <b>Ex. 6</b> | Wagon     | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |
|                                   |                 |                           |              |           |               |                   |                   |            |                                 |                                 |                                  |
|                                   |                 |                           |              |           |               |                   |                   |            |                                 |                                 |                                  |
|                                   |                 |                           |              |           |               |                   |                   |            |                                 |                                 |                                  |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description | VIN | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|-------------------|-----|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L-001c/L-002c - all               | all             | all               | all | all       | all        | 55                     | 22                    | 14.53                    | 5.81                    | n/a                           |

**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**Cc:** "Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]  
**From:** "Popa, Edward"  
**Sent:** Tue 6/3/2008 3:47:58 PM  
**Subject:** RE: Question about the maintenance form

Hi Lynn,

I looked up the spec for freeze protection level, and it has a value of -35 degrees. There is no window for this spec, which means that the value is pretty exact.

The only window that exists is for the water/coolant mixture, which can be anywhere between 40% and 60%. The asked consistency should however be 50%.

If you have any questions please let me know.  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
mailto:edward.popa@audi.com  
<http://www.vw.com>  
<http://www.audiusa.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Thursday, May 29, 2008 11:31 AM

To: Popa, Edward

Subject: Question about the maintenance form

Hi, Edward.

A few weeks ago you returned an EPA maintenance form to me with specifications that you had inserted for radiator pressure, etc. You included, for freeze protection level, a spec of -35 degrees at 50% water/coolant mixture. This seems pretty exact. I'd like to ask if this is an upper specification (for example could the freeze protection level be less than -35 degrees) or is there an acceptable band around that temperature (such as + or - 5 degrees). Any guidance would be appreciated.

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax



**To:** Lynn Sohacki/AA/USEPA/US@EPA;Bruce Garrison/AA/USEPA/US@EPA;Bernd Liebner/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA;Bernd Liebner/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA[]  
**Cc:** "Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Roth, Eugen (EASZ/5)" [eugen.roth@volkswagen.de]; om Ball/AA/USEPA/US@EPA[]  
**From:** "Popa, Edward"  
**Sent:** Thur 6/12/2008 2:21:33 PM  
**Subject:** Test Parameters For EPA In-Use Confirmatory Test Program - Engine Family 5VWXV01.9236 - 2nd & 3rd vehicles  
[# TEST-PARAMETERS 5VWXV01.9236 080602.xls](#)

Ladies and Gentlemen,

Please find below the test information and parameters for the second and third vehicles to be tested within the current EPA In-Use Confirmatory Test Program - L-001c/L-002c (Eng. Fam. 5VWXV01.9236).

VIN specific test parameters are to be find in the attached .xls spread sheet as well.

Lab: NVFEL Ann Arbor,  
Michigan  
Engine Family: 5VWXV02.5253  
Estimated Start Date: November 16, 2007  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-001c/L-002c (low mileage /  
high mileage)

- General Test Group Information:

-----  
Engine Fam.: 5VWXV01.9236  
Concept: 1.9L/I4 TDI-PD, 100 hp  
Em. Standard: BIN 10 - InT2  
Sales Area: Federal (45 States only) / Canada  
Engine HP: 100 hp  
Engine Code: BEW  
Models in TG: VW New Beetle, Golf, Jetta Sedan,  
Jetta Wagon (PQ-34)  
EVAP Fam.: n/a  
EVAP Standard: n/a  
# of sold vehicles in TG: 15,056

- General Vehicle Group Information:

-----  
Tank Capacity 100% [l] 55.0 [l]  
Tank Capacity 40% [l] 22.0 [l]  
Tank Capacity 100% [gal] 14.53 [gal]  
Tank Capacity 40% [gal] 5.81 [gal]  
Canister Working Cap. [g] n/a  
Standard Tire Size 195/65 R15  
Axle Ratio 3.491 (L5-S5) / 3.389 (M5)

- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet

- VIN Specific Information:

(2) L002RXX-0100c (2005 VW-Golf) -- vehicle inspection scheduled for 06/10/2008 (Tuesday) at ~07:30

|                  |                        |
|------------------|------------------------|
| VIN:             | Ex. 6                  |
| Make/Model:      | Golf GLS TDI           |
| Model Code:      | 9B1534                 |
| Exterior Color:  | REFLEX SILVER METALLIC |
| Prod Date:       | 08/28/2004             |
| In Service Date: | 11/03/2004             |
| Engine#:         | BEW 043217             |
| Vehicle Source:  | Brazil                 |

(3) L001RXX-0114c (2005 VW-Jetta) -- vehicle inspection scheduled for 06/13/2008 (Friday) at ~09:00

|                  |                |
|------------------|----------------|
| VIN:             | Ex. 6          |
| Make/Model:      | Jetta GLS TDI  |
| Model Code:      | 9M2538         |
| Exterior Color:  | BLACK EXTERIOR |
| Prod Date:       | 08/27/2004     |
| In Service Date: | 03/17/2005     |
| Engine#:         | BEW 044489     |
| Vehicle Source:  | Mexico         |

In case there are any questions or need of additional information, please don't hesitate to contact me.

Best regards,

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
<mailto:edward.popa@audi.com> <<mailto:edward.popa@audi.com>>  
<http://www.vw.com> <<http://www.vw.com/>>  
<http://www.audiusa.com> <<http://www.audiusa.com/>>



## Test Parameters For EPA In-Use Confirmatory Test Program L-001c/L-002c (5VWXXV01.9236)

**Engine Fam.:** 5VWXXV02.5253  
**Concept:** 1.9L/I4 TDI-PD  
**Em. Standard:** BIN 10 - Int2  
**Sales Area:** Federal (45 States only) / Canada  
**Engine HP:** 100 hp  
**Engine Code:** BEW  
**Models in TG:** VW New Beetle, Golf, Jetta Sedan, Jetta Wagon (PQ-34)  
**EVAP Fam.s in TG:** n/a  
**EVAP Standard:** n/a  
**# of sold vehicles in TG:** 15,056

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN          | Body Type | Trim Level    | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|---------------------------|--------------|-----------|---------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L002RXX-0024c                     | 1J6534          | Jetta GLS TDI 5-SPD MANU  | <b>Ex. 6</b> | Wagon     | 1.9L (TDI-PD) | 3,095             | 3,375     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,869                        |
| L002RXX-0100c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   |              | Hatchback | 1.9L (TDI-PD) | 2,935             | 3,250     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,549                        |
| L001RXX-0114c                     | 9M2538          | Jetta GLS TDI 5-SPD AUTOM |              | Sedan     | 1.9L (TDI-PD) | 3,115             | 3,375     | 24.73                | 0.3654                     | 0.0170                         | 195/65 R15 | 3,146                        |
|                                   |                 |                           |              |           |               |                   |           |                      |                            |                                |            |                              |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | Body Type | Trim Level    | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|---------------------------|-----------|---------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L002RXX-0024c                     | 1J6534          | VLK / JET / Jetta GLS TDI | Wagon     | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |
| L002RXX-0100c                     | 9B1534          | VLK / GOL / Golf GLS TDI  | Hatchback | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |
| L001RXX-0114c                     | 9M2538          | Jetta GLS TDI 5-SPD AUTOM | Sedan     | 1.9L (TDI-PD) | L5-S5             | GPC               | 3.491      | FTA                             | HWA                             | US6A                             |
|                                   |                 |                           |           |               |                   |                   |            |                                 |                                 |                                  |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|-------------------|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L-001c/L-002c - all               | all             | all               | all       | all        | 55                     | 22                    | 14.53                    | 5.81                    | n/a                           |

**To:** Lynn Sohacki/AA/USEPA/US@EPA[]  
**Cc:** Tom Ball/AA/USEPA/US@EPA;"Johnson, Stuart" [Stuart.Johnson@vw.com];  
Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)"  
[Norbert.Krause@vw.com]; Roth, Eugen (EASZ/5)" [eugen.roth@volkswagen.de]  
**From:** "Popa, Edward"  
**Sent:** Thur 6/12/2008 2:27:19 PM  
**Subject:** RE: FTP testing for the confirmatory class

Hi Lynn,

We discussed this topic here, and came to the consent that there is no concern on our sides to do as you suggested.

Thank you and best regards,  
Edy

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
mailto:edward.popa@audi.com  
<http://www.vw.com>  
<http://www.audiusa.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Monday, June 09, 2008 9:29 AM  
To: Popa, Edward  
Cc: Ball.Tom@epamail.epa.gov  
Subject: FTP testing for the confirmatory class

Hi, Edy.

I hope you had a nice weekend.

Would you please send me an e-mail letting me know whether VW has any concerns or objections with EPA just running the FTP and not the US06 or FEHWY on the confirmatory vehicles?

Thanks!

Lynn Sohacki  
Environmental Protection Agency

(734)214-4851  
(734)214-4869 fax

**To:** Lynn Sohacki/AA/USEPA/US@EPA;Vincent Mazaitis/AA/USEPA/US@EPA;Bruce Garrison/AA/USEPA/US@EPA[]; incen Mazaitis/AA/USEPA/US@EPA;Bruce Garrison/AA/USEPA/US@EPA[]; ruce Garrison/AA/USEPA/US@EPA[]  
**Cc:** "Johnson, Stuart" [Stuart.Johnson@vw.com]; Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Roth, Eugen (EASZ/5)" [eugen.roth@volkswagen.de]; om Ball/AA/USEPA/US@EPA[]  
**From:** "Popa, Edward"  
**Sent:** Tue 6/24/2008 8:19:14 PM  
**Subject:** Test Parameters For EPA In-Use Confirmatory Test Program - Engine Family 5VWXV01.9236 - 4th vehicle  
[# TEST-PARAMETERS 5VWXV01.9236 080602.xls](#)

Ladies and Gentlemen,

Please find below the test information and parameters for the forth vehicle to be tested within the current EPA In-Use Confirmatory Test Program - L-001c/L-002c (Eng. Fam. 5VWXV01.9236).

VIN specific test parameters are to be find in the attached .xls spread sheet as well.

Lab: NVFEL Ann Arbor,  
Michigan  
Engine Family: 5VWXV02.5253  
Estimated Start Date: November 16, 2007  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-001c/L-002c (low mileage / high mileage)

- General Test Group Information:

-----  
Engine Fam.: 5VWXV01.9236  
Concept: 1.9L/I4 TDI-PD, 100 hp  
Em. Standard: BIN 10 - InT2  
Sales Area: Federal (45 States only) / Canada  
Engine HP: 100 hp  
Engine Code: BEW  
Models in TG: VW New Beetle, Golf, Jetta Sedan, Jetta Wagon (PQ-34)  
EVAP Fam.: n/a  
EVAP Standard: n/a  
# of sold vehicles in TG: 15,056

- General Vehicle Group Information:

-----  
Tank Capacity 100% [l] 55.0 [l]  
Tank Capacity 40% [l] 22.0 [l]  
Tank Capacity 100% [gal] 14.53 [gal]  
Tank Capacity 40% [gal] 5.81 [gal]  
Canister Working Cap. [g] n/a  
Standard Tire Size 195/65 R15  
Axle Ratio 3.491 (L5-S5) / 3.389 (M5)

- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet also

-----  
- VIN Specific Information:

-----  
(4) L002RXX-0013c (2005 VW-Golf) -- vehicle inspection scheduled for 06/25/2008 (Tuesday) at ~08:00

|                  |                          |
|------------------|--------------------------|
| VIN:             | <b>Ex. 6</b>             |
| Make/Model:      | Golf GLS TDI             |
| Model Code:      | 9B1534                   |
| Exterior Color:  | BLUE ANTHRACITE METALLIC |
| Prod Date:       | 11/27/2004               |
| In Service Date: | 03/10/2005               |
| Engine#:         | BEW 052739               |
| Vehicle Source:  | Brazil                   |

In case there are any questions or need of additional information, please don't hesitate to contact me.

Best regards,

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
mailto:edward.popa@audi.com  
<http://www.vw.com>  
<http://www.audiusa.com>

-----Original Message-----

From: Mazaitis.Vincent@epamail.epa.gov  
[mailto:Mazaitis.Vincent@epamail.epa.gov]  
Sent: Tuesday, June 24, 2008 3:07 PM  
To: Popa, Edward  
Cc: Sohacki.Lynn@epamail.epa.gov  
Subject: Next Confirmatory Vehicle

Hello Edy



Please find enclosed the VIN for the next Confirmatory Test Vehicle to be inspected tomorrow morning 6/25/08 at 8:00 a.m.

If you have any questions please contact me.

Kind regards,

Vince Mazaitis

(See attached file: VW Confirmatory VIN.pdf)

# Test Parameters For EPA In-Use Confirmatory Test Program L-001c/L-002c (5VWXXV01.9236)

Engine Fam.: 5VWXXV02.5253  
Concept: 1.9L/I4 TDI-PD  
Em. Standard: BIN 10 - InT2  
Sales Area: Federal (45 States only) / Canada  
Engine HP: 100 hp  
Engine Code: BEW  
Models in TG: VW New Beetle, Golf, Jetta Sedan, Jetta Wagon (PQ-34)  
EVAP Fam.s in TG: n/a  
EVAP Standard: n/a  
# of sold vehicles in TG: 15,056

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN   | Body Type | Trim Level    | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |
|-----------------------------------|-----------------|---------------------------|-------|-----------|---------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|
| L002RXX-0024c                     | 1J6534          | Jetta GLS TDI 5-SPD MANU  | Ex. 6 | Wagon     | 1.9L (TDI-PD) | 3,095             | 3,375     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,869                        |
| L002RXX-0100c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   |       | Hatchback | 1.9L (TDI-PD) | 2,935             | 3,250     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,549                        |
| L001RXX-0114c                     | 9M2538          | Jetta GLS TDI 5-SPD AUTOM |       | Sedan     | 1.9L (TDI-PD) | 3,115             | 3,375     | 24.73                | 0.3654                     | 0.0170                         | 195/65 R15 | 3,146                        |
| L002RXX-0013c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   |       | Hatchback | 1.9L (TDI-PD) | 2,935             | 3,250     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,549                        |
|                                   |                 |                           |       |           |               |                   |           |                      |                            |                                |            |                              |

rejected by EPA

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | Body Type | Trim Level    | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |
|-----------------------------------|-----------------|---------------------------|-----------|---------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|
| L002RXX-0024c                     | 1J6534          | VLK / JET / Jetta GLS TDI | Wagon     | 1.9L (TDI-PD) | 04 M5             | EUH               | 3          | 590 0041                        | 590 0042                        | 590 0043                         |
| L002RXX-0100c                     | 9B1534          | VLK / GOL / Golf GLS TDI  | Hatchback | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |
| L001RXX-0114c                     | 9M2538          | Jetta GLS TDI 5-SPD AUTOM | Sedan     | 1.9L (TDI-PD) | L5-S5             | GPC               | 3.491      | FTA                             | HWA                             | US6A                             |
| L002RXX-0013c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   | Hatchback | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |

rejected by EPA

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|-------------------|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L-001c/L-002c - all               | all             | all               | all       | all        | 55                     | 22                    | 14.53                    | 5.81                    | n/a                           |

**To:** Lynn Sohacki/AA/USEPA/US@EPA; Vincent Mazaitis/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; Vincent Mazaitis/AA/USEPA/US@EPA; Bruce Garrison/AA/USEPA/US@EPA[]; Bruce Garrison/AA/USEPA/US@EPA[]  
**Cc:** "Krause, Norbert (VWoA)" [Norbert.Krause@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]; Tom Ball/AA/USEPA/US@EPA[]  
**From:** "Popa, Edward"  
**Sent:** Fri 6/27/2008 3:09:04 PM  
**Subject:** RE: In-use vehicles scheduled for next week  
# TEST-PARAMETERS 5VWXV01.9236 080602.xls

Ladies and Gentlemen,

**Ex. 6**

Please find below the test information and parameters for the fifth vehicle to be tested within the current EPA In-Use Confirmatory Test Program - L-001c/L-002c (Eng. Fam. 5VWXV01.9236).

VIN specific test parameters are to be found in the attached .xls spreadsheet as well.

Lab: NVFEL Ann Arbor,  
Michigan  
Engine Family: 5VWXV02.5253  
Estimated Start Date: November 16, 2007  
Recall/Testing Representative: Lynn Sohacki  
Telephone Number: (734) 214-4851  
E-mail address: Sohacki.Lynn@epa.gov  
Class Numbers: L-001c/L-002c (low mileage /  
high mileage)

- General Test Group Information:

-----  
Engine Fam.: 5VWXV01.9236  
Concept: 1.9L/I4 TDI-PD, 100 hp  
Em. Standard: BIN 10 - InT2  
Sales Area: Federal (45 States only) / Canada  
Engine HP: 100 hp  
Engine Code: BEW  
Models in TG: VW New Beetle, Golf, Jetta Sedan,  
Jetta Wagon (PQ-34)  
EVAP Fam.: n/a  
EVAP Standard: n/a  
# of sold vehicles in TG: 15,056

- General Vehicle Group Information:

-----  
Tank Capacity 100% [l] 55.0 [l]  
Tank Capacity 40% [l] 22.0 [l]  
Tank Capacity 100% [gal] 14.53 [gal]  
Tank Capacity 40% [gal] 5.81 [gal]  
Canister Working Cap. [g] n/a  
Standard Tire Size 195/65 R15  
Axle Ratio 3.491 (L5-S5) / 3.389 (M5)

- Model & VIN Specific Test Parameters: => see attached .xls spreadsheet also

-----  
- VIN Specific Information:

-----  
(5) L001RXX-0130c (2005 VW-Golf) -- vehicle inspection scheduled for 07/01/2008 (Tuesday) at ~07:00

|                  |                        |
|------------------|------------------------|
| VIN:             | <b>Ex. 6</b>           |
| Make/Model:      | Golf GLS TDI           |
| Model Code:      | 9B1534                 |
| Exterior Color:  | REFLEX SILVER METALLIC |
| Prod Date:       | 02/10/2005             |
| In Service Date: | 05/07/2005             |
| Engine#:         | BEW 055850             |
| Vehicle Source:  | Brazil                 |

In case there are any questions or need of additional information, please don't hesitate to contact me.

Best regards,

Edward-Fabian Popa  
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.  
Engineering and Environmental Office  
3800 Hamlin Road  
Auburn Hills, MI 48326, U.S.A.  
Tel. +1 248 754 4211  
Mobile: +1 248 881 4095  
Fax: +1 248 754 4207  
mailto:edward.popa@audi.com  
<http://www.vw.com>  
<http://www.audiusa.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Thursday, June 26, 2008 10:48 AM

To: Popa, Edward

Subject: In-use vehicles scheduled for next week

Hi, Edy.

Listed below is the information for the vehicles that we have scheduled for next week.

L001RXX-0130c (2005 VW/Jetta) - VIN# [redacted] Ex. 6 pick up on  
7/1/08 (Tuesday)

Please send the following to me for these vehicles before pick-up:

vehicle target road-load coefficients  
fuel tank capacity  
40% tank capacity  
tire pressure

Please also include:

preferred method for loading the canister  
preferred fuel drain method  
any special starting procedures

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki  
Environmental Protection Agency  
(734)214-4851  
(734)214-4869 fax

# Test Parameters For EPA In-Use Confirmatory Test Program L-001c/L-002c (5VWXXV01.9236)

Engine Fam.: 5VWXXV02.5253  
Concept: 1.9L/I4 TDI-PD  
Em. Standard: BIN 10 - InT2  
Sales Area: Federal (45 States only) / Canada  
Engine HP: 100 hp  
Engine Code: BEW  
Models in TG: VW New Beetle, Golf, Jetta Sedan, Jetta Wagon (PQ-34)  
EVAP Fam.s in TG: n/a  
EVAP Standard: n/a  
# of sold vehicles in TG: 15,056

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN               | Body Type | Trim Level    | Curb Weight [lbs] | ETW [lbs] | F0 Target SAE [lb_f] | F1 Target SAE [lb_f / mph] | F2 Target SAE [lb_f / (mph)^2] | Tire Size  | Sold Vehicles per Model Code |                 |
|-----------------------------------|-----------------|---------------------------|-------------------|-----------|---------------|-------------------|-----------|----------------------|----------------------------|--------------------------------|------------|------------------------------|-----------------|
| L002RXX-0024c                     | 1J6534          | Jetta GLS TDI 5-SPD MANU  | WVWSR61J75W008240 | Wagon     | 1.9L (TDI-PD) | 3,095             | 3,375     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,869                        | rejected by EPA |
| L002RXX-0100c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   | 9BWGR61JX54006232 | Hatchback | 1.9L (TDI-PD) | 2,935             | 3,250     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,549                        |                 |
| L001RXX-0114c                     | 9M2538          | Jetta GLS TDI 5-SPD AUTOM | 3VWSR69M15M045490 | Sedan     | 1.9L (TDI-PD) | 3,115             | 3,375     | 24.73                | 0.3654                     | 0.0170                         | 195/65 R15 | 3,146                        |                 |
| L002RXX-0013c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   | 9BWGR61J354015757 | Hatchback | 1.9L (TDI-PD) | 2,935             | 3,250     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,549                        |                 |
| L001RXX-0130c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   | 9BWGR61J654022735 | Hatchback | 1.9L (TDI-PD) | 2,935             | 3,250     | 22.71                | 0.1049                     | 0.0194                         | 195/65 R15 | 1,549                        |                 |
|                                   |                 |                           |                   |           |               |                   |           |                      |                            |                                |            |                              |                 |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description         | VIN               | Body Type | Trim Level    | Transmission Type | Transmission Code | Axle Ratio | FTP - Shift Schedule: CEFIS No. | HWY - Shift Schedule: CEFIS No. | US06 - Shift Schedule: CEFIS No. |                 |
|-----------------------------------|-----------------|---------------------------|-------------------|-----------|---------------|-------------------|-------------------|------------|---------------------------------|---------------------------------|----------------------------------|-----------------|
| L002RXX-0024c                     | 1J6534          | VLK / JET / Jetta GLS TDI | WVWSR61J75W008240 | Wagon     | 1.9L (TDI-PD) | 04 M5             | EUH               | 3          | 590 0041                        | 590 0042                        | 590 0043                         | rejected by EPA |
| L002RXX-0100c                     | 9B1534          | VLK / GOL / Golf GLS TDI  | 9BWGR61JX54006232 | Hatchback | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |                 |
| L001RXX-0114c                     | 9M2538          | Jetta GLS TDI 5-SPD AUTOM | 3VWSR69M15M045490 | Sedan     | 1.9L (TDI-PD) | L5-S5             | GPC               | 3.491      | FTA                             | HWA                             | US6A                             |                 |
| L002RXX-0013c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   | 9BWGR61J354015757 | Hatchback | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |                 |
| L001RXX-0130c                     | 9B1534          | Golf GLS TDI 5-SPD MANU   | 9BWGR61J654022735 | Hatchback | 1.9L (TDI-PD) | 04 M5             | EUH               | 3.389      | 590 0041                        | 590 0042                        | 590 0043                         |                 |
|                                   |                 |                           |                   |           |               |                   |                   |            |                                 |                                 |                                  |                 |

| EPA Internal Veh. Procurement No. | Sale Model Code | Model Description | VIN | Body Type | Trim Level | Tank Capacity 100% [l] | Tank Capacity 40% [l] | Tank Capacity 100% [gal] | Tank Capacity 40% [gal] | Canister Working Capacity [g] |
|-----------------------------------|-----------------|-------------------|-----|-----------|------------|------------------------|-----------------------|--------------------------|-------------------------|-------------------------------|
| L-001c/L-002c - all               | all             | all               | all | all       | all        | 55                     | 22                    | 14.53                    | 5.81                    | n/a                           |

**To:** richard.thomas@vw.com;dennis.reineke@vw.com[]; ennis.reineke@vw.com[]  
**Cc:** CN=Bruce Sdunek/OU=AA/O=USEPA/C=US@EPA;CN=Ted Trimble/OU=AA/O=USEPA/C=US@EPA;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]; N=Ted Trimble/OU=AA/O=USEPA/C=US@EPA;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]; N=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]  
**From:** CN=David Good/OU=AA/O=USEPA/C=US  
**Sent:** Sat 6/28/2008 9:29:05 PM  
**Subject:** 2009 FE Guide for July 15, 2008 web posting - Please review & let EPA know after the CFEIS data is error free and ready for posting  
[2009 FE guide AUDI-VW-OTHER 6-26-08.xls](#)

Richard,

Attached is an Excel Spreadsheet with the FE data from CFEIS as of June 26, 2008. Please review the spread sheet and confirm for your records that the data are correct. Please make sure that the release date is accurate for the models listed. Please double check any new entries into CFEIS to make sure they are error free. Any changes should be made directly in the CFEIS/Verify database. [Do not correct the spreadsheet and send it back.]

The last date to make changes is July 8, 2008. EPA will review the data on July 9 and forward it to DOE on July 10 for posting on the web on July 15, 2008. We will not post model types with release dates after July 15, 2008.

Please email me and your EPA team member when your 2008 CFEIS/Verify data is "good to go" (after any needed changes or additions are made to CFEIS/Verify and you are sure that CFEIS/Verify is correct).

#### Reminders:

**Release date:** Please be sure the release dates are correct for your 2009 FE labels. We will post the early-introduction 2009 models on the web which have release dates of July 15 or earlier. Note that the attached file includes all data as of June 26, 2008 (with all release dates).

**Minivan Classification:** Please continue to use the minivan guidance provided in CISC-07-08 (and do not use the 180 cubic feet interior volume specification in the regulations).

**5-Cycle Labels:** Please continue to use the guidance provided in CISC-07-09. For 5-cycle labels, please enter one index for the 5-cycle information and another index for the derived 5-cycle information. Both indexes should have the same number of projected sales.

**Dual Fuel Alternative Fuel Vehicles:** Please use the guidance provided in CISC-07-09, Enclosure 1, page 3 and CISC 07-11 Enclosure 2, Section 2. Please enter one index for the gasoline/diesel information and another separate index for the alternative fuel information. Both indexes should have the same number of projected sales. Please enter the driving range (rounded to the nearest 10 miles) in the engine block descriptor field (G1 record, column 47-56) for both the gasoline/diesel driving range and the alternative fuel driving range. For the alternative fuel mpg values, EPA will use the manufacturers calculated FE Label mpg values, and not the EPA-calculated mpg values (since the EPA-calculated mpg values for alternative fuel vehicles are not calculated in accordance with the provisions of 40 CFR 600.210-08(a)(3)).

Fuel Costs: Until new fuel costs are provided to manufacturers in a future EPA guidance letter, manufacturers should use the 2008 model year fuel costs provided in CISC-07-11. The new fuel costs will be provided in June or July, 2008.

Range of comparable vehicles: Until the 2009 ranges (for the various classes of vehicles) are provided in a future EPA guidance letter, manufacturers should continue to use the 2008 model year ranges provided in CISC-07-14 (except if a model exceeds the 2008 range values, the manufacturer should extend the range appropriately); ref 40 CFR 600.306-08(b)(1).

If you have any questions, feel free to email me or give me a call. I'm at 734-214-4450.

Regards



| EPA com | nCFEIS cor | CLASS     | MFR     | CAR LINE   | DISPLAC | NUMB CY | TRANS    | DRIVE SY | INDEX | NU |
|---------|------------|-----------|---------|------------|---------|---------|----------|----------|-------|----|
|         |            | SMALL STA | AUDI    | A3         | 2       | 4       | Manual(M | F        |       | 16 |
|         |            | SMALL STA | AUDI    | A3         | 2       | 4       | Manual(M | F        |       | 19 |
|         |            | SMALL STA | AUDI    | A3         | 2       | 4       | Auto(S6) | F        |       | 16 |
|         |            | SMALL STA | AUDI    | A3         | 2       | 4       | Auto(S6) | F        |       | 19 |
|         |            | SMALL STA | AUDI    | A3 QUATT   | 2       | 4       | Auto(S6) |          | 4     | 15 |
|         |            | SMALL STA | AUDI    | A3 QUATT   | 2       | 4       | Auto(S6) |          | 4     | 18 |
|         |            | COMPACT   | AUDI    | A4 QUATT   | 3.2     | 6       | Auto(S6) |          | 4     | 25 |
|         |            | COMPACT   | AUDI    | A4 QUATT   | 3.2     | 6       | Auto(S6) |          | 4     | 24 |
|         |            | SUBCOMF   | AUDI    | A5 QUATT   | 3.2     | 6       | Manual(M | F        | 4     | 25 |
|         |            | SUBCOMF   | AUDI    | A5 QUATT   | 3.2     | 6       | Manual(M | F        | 4     | 24 |
|         |            | SUBCOMF   | AUDI    | A5 QUATT   | 3.2     | 6       | Auto(S6) |          | 4     | 25 |
|         |            | SUBCOMF   | AUDI    | A5 QUATT   | 3.2     | 6       | Auto(S6) |          | 4     | 24 |
|         |            | SUBCOMF   | AUDI    | TT COUPE   | 2       | 4       | Auto(S6) |          | 4     | 15 |
|         |            | SUBCOMF   | AUDI    | TT COUPE   | 2       | 4       | Auto(S6) |          | 4     | 18 |
|         |            | TWO SEA   | AUDI    | TT ROAD    | 2       | 4       | Auto(S6) |          | 4     | 15 |
|         |            | TWO SEA   | AUDI    | TT ROAD    | 2       | 4       | Auto(S6) |          | 4     | 18 |
|         |            | TWO SEA   | LAMBOR  | GALLARD    | 5.2     | 10      | Manual(M | F        | 4     | 22 |
|         |            | TWO SEA   | LAMBOR  | GALLARD    | 5.2     | 10      | Manual(M | F        | 4     | 23 |
|         |            | TWO SEA   | LAMBOR  | GALLARD    | 5.2     | 10      | Auto(S6) |          | 4     | 22 |
|         |            | TWO SEA   | LAMBOR  | GALLARD    | 5.2     | 10      | Auto(S6) |          | 4     | 23 |
|         |            | TWO SEA   | LAMBOR  | GALLARD    | 5.2     | 10      | Auto(S6) |          | 4     | 22 |
|         |            | TWO SEA   | LAMBOR  | GALLARD    | 5.2     | 10      | Auto(S6) |          | 4     | 23 |
|         |            | SUBCOMF   | VOLKSW  | A EOS      | 2       | 4       | Manual(M | F        |       | 7  |
|         |            | SUBCOMF   | VOLKSW  | A EOS      | 2       | 4       | Manual(M | F        |       | 11 |
|         |            | SUBCOMF   | VOLKSW  | A EOS      | 2       | 4       | Auto(S6) | F        |       | 27 |
|         |            | SUBCOMF   | VOLKSW  | A EOS      | 2       | 4       | Auto(S6) | F        |       | 28 |
|         |            | COMPACT   | VOLKSW  | A GTI      | 2       | 4       | Manual(M | F        |       | 7  |
|         |            | COMPACT   | VOLKSW  | A GTI      | 2       | 4       | Manual(M | F        |       | 11 |
|         |            | COMPACT   | VOLKSW  | A GTI      | 2       | 4       | Auto(S6) | F        |       | 6  |
|         |            | COMPACT   | VOLKSW  | A GTI      | 2       | 4       | Auto(S6) | F        |       | 10 |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2       | 4       | Manual(M | F        |       | 7  |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2       | 4       | Manual(M | F        |       | 11 |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2       | 4       | Auto(S6) | F        |       | 6  |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2       | 4       | Auto(S6) | F        |       | 10 |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2.5     | 5       | Manual(M | F        |       | 21 |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2.5     | 5       | Manual(M | F        |       | 20 |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2.5     | 5       | Auto(S6) | F        |       | 21 |
|         |            | COMPACT   | VOLKSW  | A JETTA    | 2.5     | 5       | Auto(S6) | F        |       | 20 |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2       | 4       | Manual(M | F        |       | 7  |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2       | 4       | Manual(M | F        |       | 11 |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2       | 4       | Auto(S6) | F        |       | 6  |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2       | 4       | Auto(S6) | F        |       | 10 |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2.5     | 5       | Manual(M | F        |       | 21 |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2.5     | 5       | Manual(M | F        |       | 20 |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2.5     | 5       | Auto(S6) | F        |       | 21 |
|         |            | SMALL ST  | VOLKSW  | A JETTA SP | 2.5     | 5       | Auto(S6) | F        |       | 20 |
|         |            | MIDSIZE   | (VOLKSW | A PASSAT   | 2       | 4       | Manual(M | F        |       | 7  |
|         |            | MIDSIZE   | (VOLKSW | A PASSAT   | 2       | 4       | Manual(M | F        |       | 11 |
|         |            | MIDSIZE   | (VOLKSW | A PASSAT   | 2       | 4       | Auto(S6) | F        |       | 8  |

|                              |     |              |    |
|------------------------------|-----|--------------|----|
| MIDSIZE (VOLKSWAGEN)PASSAT   | 2   | 4 Auto(S6) F | 9  |
| MIDSIZE (VOLKSWAGEN)PASSAT V | 2   | 4 Manual(M&F | 7  |
| MIDSIZE (VOLKSWAGEN)PASSAT V | 2   | 4 Manual(M&F | 11 |
| MIDSIZE (VOLKSWAGEN)PASSAT V | 2   | 4 Auto(S6) F | 8  |
| MIDSIZE (VOLKSWAGEN)PASSAT V | 2   | 4 Auto(S6) F | 9  |
| COMPACTVOLKSWAGENRABBIT      | 2.5 | 5 Manual(M&F | 21 |
| COMPACTVOLKSWAGENRABBIT      | 2.5 | 5 Manual(M&F | 20 |
| COMPACTVOLKSWAGENRABBIT      | 2.5 | 5 Auto(S6) F | 21 |
| COMPACTVOLKSWAGENRABBIT      | 2.5 | 5 Auto(S6) F | 20 |

| CITY | MPGHWY | MPGCOMB | MPUNRND | C UNRND | H'UNRND  | C FUEL   | TYP | GUZLR | TURBO | SPCHGR |
|------|--------|---------|---------|---------|----------|----------|-----|-------|-------|--------|
| 21   | 30     | 24      | 20.7483 |         | 30       | 24.0917P |     |       | T     |        |
| 20   | 29     | 23      | 25.2484 | 40.8595 | 30.4907P |          |     |       | T     |        |
| 22   | 28     | 24      | 21.6082 | 27.71   | 23.9848P |          |     |       | T     |        |
| 21   | 28     | 24      | 27.1248 | 38.9863 | 31.4276P |          |     |       | T     |        |
| 21   | 28     | 24      | 20.9    | 28.1    | 23.6239P |          |     |       | T     |        |
| 21   | 27     | 23      | 27.2    | 37.1    | 30.9119P |          |     |       | T     |        |
| 17   | 26     | 20      | 16.959  | 26.4582 | 20.2269P |          | G   |       |       |        |
| 18   | 26     | 21      | 22.0916 | 36.1369 | 26.7744P |          |     |       |       |        |
| 16   | 27     | 20      | 16.5    | 26.8    | 19.9504P |          | G   |       |       |        |
| 16   | 26     | 20      | 20.5    | 35.8    | 25.3813P |          |     |       |       |        |
| 17   | 26     | 20      | 16.959  | 26.4582 | 20.2269P |          | G   |       |       |        |
| 18   | 26     | 21      | 22.0916 | 36.1369 | 26.7744P |          |     |       |       |        |
| 21   | 29     | 24      | 21.3381 | 28.9655 | 24.2065P |          |     |       | T     |        |
| 22   | 28     | 24      | 27.575  | 39.6259 | 31.9471P |          |     |       | T     |        |
| 21   | 29     | 24      | 21.3381 | 28.9655 | 24.2065P |          |     |       | T     |        |
| 22   | 28     | 24      | 27.575  | 39.6259 | 31.9471P |          |     |       | T     |        |
| 12   | 20     | 15      | 12.1    | 20      | 14.7157P |          | G   |       |       |        |
| 11   | 17     | 14      | 14      | 24      | 17.2308P |          | G   |       |       |        |
| 14   | 20     | 16      | 13.5    | 19.8    | 15.756P  |          | G   |       |       |        |
| 13   | 18     | 15      | 16.1    | 25.4    | 19.276P  |          | G   |       |       |        |
| 13   | 20     | 16      | 13.4    | 19.8    | 15.6809P |          | G   |       |       |        |
| 13   | 18     | 15      | 16      | 25.4    | 19.197P  |          | G   |       |       |        |
| 21   | 31     | 25      | 21.2518 | 30.8496 | 24.7115P |          |     |       | T     |        |
| 21   | 29     | 24      | 26.1183 | 41.4311 | 31.3289P |          |     |       | T     |        |
| 22   | 29     | 25      | 22.4    | 29.3    | 25.0552P |          |     |       | T     |        |
| 22   | 30     | 25      | 28.3    | 41.7    | 33.0841P |          |     |       | T     |        |
| 21   | 31     | 25      | 21.2518 | 30.8496 | 24.7115P |          |     |       | T     |        |
| 21   | 29     | 24      | 26.1183 | 41.4311 | 31.3289P |          |     |       | T     |        |
| 22   | 29     | 25      | 22.359  | 28.9121 | 24.8985P |          |     |       | T     |        |
| 22   | 29     | 25      | 28.3522 | 40.3742 | 32.739P  |          |     |       | T     |        |
| 21   | 31     | 25      | 21.2518 | 30.8496 | 24.7115P |          |     |       | T     |        |
| 21   | 29     | 24      | 26.1183 | 41.4311 | 31.3289P |          |     |       | T     |        |
| 22   | 29     | 25      | 22.359  | 28.9121 | 24.8985P |          |     |       | T     |        |
| 22   | 29     | 25      | 28.3522 | 40.3742 | 32.739P  |          |     |       | T     |        |
| 21   | 29     | 24      | 21.1794 | 29.0388 | 24.1166R |          |     |       |       |        |
| 19   | 28     | 22      | 23.8885 | 39.5591 | 29.0706R |          |     |       |       |        |
| 21   | 29     | 24      | 21.357  | 29.4601 | 24.3738R |          |     |       |       |        |
| 20   | 28     | 23      | 24.7511 | 39.4589 | 29.7394R |          |     |       |       |        |
| 21   | 31     | 25      | 21.2518 | 30.8496 | 24.7115P |          |     |       | T     |        |
| 21   | 29     | 24      | 26.1183 | 41.4311 | 31.3289P |          |     |       | T     |        |
| 22   | 29     | 25      | 22.359  | 28.9121 | 24.8985P |          |     |       | T     |        |
| 22   | 29     | 25      | 28.3522 | 40.3742 | 32.739P  |          |     |       | T     |        |
| 21   | 29     | 24      | 21.1794 | 29.0388 | 24.1166R |          |     |       |       |        |
| 19   | 28     | 22      | 23.8885 | 39.5591 | 29.0706R |          |     |       |       |        |
| 21   | 29     | 24      | 21.357  | 29.4601 | 24.3738R |          |     |       |       |        |
| 20   | 28     | 23      | 24.7511 | 39.4589 | 29.7394R |          |     |       |       |        |
| 21   | 31     | 25      | 21.2518 | 30.8496 | 24.7115P |          |     |       | T     |        |
| 21   | 29     | 24      | 26.1183 | 41.4311 | 31.3289P |          |     |       | T     |        |
| 19   | 29     | 23      | 19.3    | 29      | 22.7197P |          |     |       | T     |        |

|    |    |    |         |         |          |   |   |
|----|----|----|---------|---------|----------|---|---|
| 19 | 28 | 22 | 24.3    | 39      | 29.2635P |   | T |
| 21 | 31 | 25 | 21.2518 | 30.8496 | 24.7115P |   | T |
| 21 | 29 | 24 | 26.1183 | 41.4311 | 31.3289P |   | T |
| 19 | 28 | 22 | 18.9    | 27.6    | 22.0241P | G | T |
| 19 | 28 | 22 | 23.7    | 38.5    | 28.6573P |   | T |
| 21 | 29 | 24 | 21.457  | 29.2048 | 24.3658R |   |   |
| 19 | 28 | 22 | 24.2667 | 39.6266 | 29.3937R |   |   |
| 21 | 29 | 24 | 21.357  | 29.4601 | 24.3738R |   |   |
| 20 | 28 | 23 | 24.7511 | 39.4589 | 29.7394R |   |   |

AVG 2D P.AVG 2D LIAVG 4D P.AVG 4D LIAVG HB P.AVG HB LIAVL FL CSENG BLK TRANS DEVLVS PER

|    |    |    |    |    |    |      |          |   |
|----|----|----|----|----|----|------|----------|---|
|    |    | 89 | 20 |    |    | 1876 |          | 4 |
|    |    | 89 | 20 |    |    | 1958 |          | 4 |
|    |    | 89 | 20 |    |    | 1876 | 3MODE    | 4 |
|    |    | 89 | 20 |    |    | 1876 | 3MODE    | 4 |
|    |    | 89 | 20 |    |    | 1876 | 3MODE    | 4 |
|    |    | 89 | 20 |    |    | 1958 | 3MODE    | 4 |
|    |    | 91 | 12 |    |    | 2250 | 3MODE CI | 4 |
|    |    | 91 | 12 |    |    | 2142 | 3MODE CI | 4 |
| 84 | 12 |    |    |    |    | 2250 |          | 4 |
| 84 | 12 |    |    |    |    | 2250 |          | 4 |
| 84 | 12 |    |    |    |    | 2250 | 3MODE CI | 4 |
| 84 | 12 |    |    |    |    | 2142 | 3MODE CI | 4 |
|    |    |    |    | 74 | 13 | 1876 | 3MODE    | 4 |
|    |    |    |    | 74 | 13 | 1876 | 3MODE    | 4 |
|    |    |    |    |    |    | 1876 | 3MODE    | 4 |
|    |    |    |    |    |    | 1876 | 3MODE    | 4 |
|    |    |    |    |    |    | 3002 |          | 4 |
|    |    |    |    |    |    | 3213 |          | 4 |
|    |    |    |    |    |    | 2812 | 2MODE    | 4 |
|    |    |    |    |    |    | 3002 | 2MODE    | 4 |
|    |    |    |    |    |    | 2812 | 2MODE    | 4 |
|    |    |    |    |    |    | 3002 | 2MODE    | 4 |
| 77 | 11 |    |    |    |    | 1800 |          | 4 |
| 77 | 11 |    |    |    |    | 1876 |          | 4 |
| 77 | 11 |    |    |    |    | 1800 | 3MODE    | 4 |
| 77 | 11 |    |    |    |    | 1800 | 3MODE    | 4 |
|    |    |    |    | 94 | 15 | 1800 |          | 4 |
|    |    |    |    | 94 | 15 | 1876 |          | 4 |
|    |    |    |    | 94 | 15 | 1800 | 3MODE    | 4 |
|    |    |    |    | 94 | 15 | 1800 | 3MODE    | 4 |
|    |    | 91 | 16 |    |    | 1800 |          | 4 |
|    |    | 91 | 16 |    |    | 1876 |          | 4 |
|    |    | 91 | 16 |    |    | 1800 | 3MODE    | 4 |
|    |    | 91 | 16 |    |    | 1800 | 3MODE    | 4 |
|    |    | 91 | 16 |    |    | 1751 |          | 4 |
|    |    | 91 | 16 |    |    | 1911 |          | 4 |
|    |    | 91 | 16 |    |    | 1751 | 3MODE CI | 4 |
|    |    | 91 | 16 |    |    | 1827 | 3MODE CI | 4 |
|    |    | 92 | 33 |    |    | 1800 |          | 4 |
|    |    | 92 | 33 |    |    | 1876 |          | 4 |
|    |    | 92 | 33 |    |    | 1800 | 3MODE    | 4 |
|    |    | 92 | 33 |    |    | 1800 | 3MODE    | 4 |
|    |    | 92 | 33 |    |    | 1751 |          | 4 |
|    |    | 92 | 33 |    |    | 1911 |          | 4 |
|    |    | 92 | 33 |    |    | 1751 | 3MODE CI | 4 |
|    |    | 92 | 33 |    |    | 1827 | 3MODE CI | 4 |
|    |    | 96 | 14 |    |    | 1800 |          | 4 |
|    |    | 96 | 14 |    |    | 1876 |          | 4 |
|    |    | 96 | 14 |    |    | 1958 | 3MODE CI | 4 |

|    |    |    |    |      |          |   |
|----|----|----|----|------|----------|---|
| 96 | 14 |    |    | 2048 | 3MODE CI | 4 |
| 97 | 36 |    |    | 1800 |          | 4 |
| 97 | 36 |    |    | 1876 |          | 4 |
| 97 | 36 |    |    | 2048 | 3MODE CI | 4 |
| 97 | 36 |    |    | 2048 | 3MODE CI | 4 |
|    |    | 94 | 15 | 1751 |          | 4 |
|    |    | 94 | 15 | 1827 |          | 4 |
|    |    | 94 | 15 | 1751 | 3MODE CI | 4 |
|    |    | 94 | 15 | 1827 | 3MODE CI | 4 |

| CLS | REL DT      | SALES | 5C CODE      |
|-----|-------------|-------|--------------|
|     | 715-May-08  |       | 7125-CYCLE   |
|     | 715-May-08  |       | 712DERIVED   |
|     | 715-May-08  |       | 21355-CYCLE  |
|     | 715-May-08  |       | 2135DERIVED  |
|     | 715-May-08  |       | 30255-CYCLE  |
|     | 715-May-08  |       | 3025DERIVED  |
|     | 4 20-Jun-08 |       | 38245-CYCLE  |
|     | 4 9-Jun-08  |       | 3824DERIVED  |
|     | 3 20-Jun-08 |       | 17665-CYCLE  |
|     | 3 9-Jun-08  |       | 1766DERIVED  |
|     | 3 20-Jun-08 |       | 57955-CYCLE  |
|     | 3 9-Jun-08  |       | 5795DERIVED  |
|     | 315-May-08  |       | 8575-CYCLE   |
|     | 315-May-08  |       | 857DERIVED   |
|     | 115-May-08  |       | 9915-CYCLE   |
|     | 115-May-08  |       | 991DERIVED   |
|     | 127-May-08  |       | 535-CYCLE    |
|     | 127-May-08  |       | 53DERIVED    |
|     | 127-May-08  |       | 2995-CYCLE   |
|     | 127-May-08  |       | 299DERIVED   |
|     | 127-May-08  |       | 1315-CYCLE   |
|     | 127-May-08  |       | 131DERIVED   |
|     | 3 27-Jun-08 |       | 13655-CYCLE  |
|     | 3 27-Jun-08 |       | 1365DERIVED  |
|     | 3 27-Jun-08 |       | 100115-CYCLE |
|     | 3 27-Jun-08 |       | 10011DERIVED |
|     | 4 27-Jun-08 |       | 46115-CYCLE  |
|     | 4 27-Jun-08 |       | 4611DERIVED  |
|     | 4 3-Mar-08  |       | 47995-CYCLE  |
|     | 4 3-Mar-08  |       | 4799DERIVED  |
|     | 4 27-Jun-08 |       | 19095-CYCLE  |
|     | 4 27-Jun-08 |       | 1909DERIVED  |
|     | 4 3-Mar-08  |       | 35455-CYCLE  |
|     | 4 3-Mar-08  |       | 3545DERIVED  |
|     | 4 15-Feb-08 |       | 46255-CYCLE  |
|     | 4 15-Feb-08 |       | 4625DERIVED  |
|     | 4 15-Feb-08 |       | 531825-CYCLE |
|     | 4 15-Feb-08 |       | 53182DERIVED |
|     | 7 27-Jun-08 |       | 4095-CYCLE   |
|     | 7 27-Jun-08 |       | 409DERIVED   |
|     | 7 3-Mar-08  |       | 9555-CYCLE   |
|     | 7 3-Mar-08  |       | 955DERIVED   |
|     | 7 15-Feb-08 |       | 15515-CYCLE  |
|     | 7 15-Feb-08 |       | 1551DERIVED  |
|     | 7 15-Feb-08 |       | 75755-CYCLE  |
|     | 7 15-Feb-08 |       | 7575DERIVED  |
|     | 5 27-Jun-08 |       | 9115-CYCLE   |
|     | 5 27-Jun-08 |       | 911DERIVED   |
|     | 5 3-Mar-08  |       | 173015-CYCLE |

|   |           |               |
|---|-----------|---------------|
| 5 | 3-Mar-08  | 17301 DERIVED |
| 8 | 27-Jun-08 | 1745-CYCLE    |
| 8 | 27-Jun-08 | 174 DERIVED   |
| 8 | 3-Mar-08  | 56315-CYCLE   |
| 8 | 3-Mar-08  | 5631 DERIVED  |
| 4 | 15-Feb-08 | 49465-CYCLE   |
| 4 | 15-Feb-08 | 4946 DERIVED  |
| 4 | 15-Feb-08 | 87945-CYCLE   |
| 4 | 15-Feb-08 | 8794 DERIVED  |



| EPA com | nCFEIS cor | CLASS      | MFR     | CAR LINE   | DISPLACEN | UMB CY | ITRANS     | DRIVE SY | INDEX | NU |
|---------|------------|------------|---------|------------|-----------|--------|------------|----------|-------|----|
|         |            | SMALL STA  | AUDI    | A3         | 2         | 4      | Manual(M&F |          |       | 16 |
|         |            | SMALL STA  | AUDI    | A3         | 2         | 4      | Auto(S6) F |          |       | 16 |
|         |            | SMALL STA  | AUDI    | A3 QUATT   | 2         | 4      | Auto(S6)   | 4        |       | 15 |
|         |            | COMPACT    | AUDI    | A4 QUATT   | 3.2       | 6      | Auto(S6)   | 4        |       | 25 |
|         |            | SUBCOMF    | AUDI    | A5 QUATT   | 3.2       | 6      | Manual(M&F | 4        |       | 25 |
|         |            | SUBCOMF    | AUDI    | A5 QUATT   | 3.2       | 6      | Auto(S6)   | 4        |       | 25 |
|         |            | S.U.V. - 4 | AUDI    | Q7         | 4.2       | 8      | Auto(S6)   | 4        |       | 14 |
|         |            | TWO SEA    | AUDI    | R8         | 4.2       | 8      | Manual(M&F | 4        |       | 26 |
|         |            | TWO SEA    | AUDI    | R8         | 4.2       | 8      | Auto(S6)   | 4        |       | 26 |
|         |            | SUBCOMF    | AUDI    | TT COUPE   | 2         | 4      | Auto(S6) F |          |       | 12 |
|         |            | SUBCOMF    | AUDI    | TT COUPE   | 2         | 4      | Auto(S6)   | 4        |       | 15 |
|         |            | TWO SEA    | AUDI    | TT ROAD&   | 2         | 4      | Auto(S6) F |          |       | 12 |
|         |            | TWO SEA    | AUDI    | TT ROAD&   | 2         | 4      | Auto(S6)   | 4        |       | 15 |
|         |            | MIDSIZE (B | BENTLEY | ARNAGE     | 6.7       | 8      | Auto(S6) R |          |       | 2  |
|         |            | LARGE C/B  | BENTLEY | ARNAGE I   | 6.7       | 8      | Auto(S6) R |          |       | 2  |
|         |            | COMPACT    | BENTLEY | AZURE      | 6.7       | 8      | Auto(S6) R |          |       | 2  |
|         |            | COMPACT    | BENTLEY | BROOKLA    | 6.7       | 8      | Auto(S6) R |          |       | 2  |
|         |            | MIDSIZE (B | BENTLEY | CONTINEI   | 6         | 12     | Auto(S6)   | 4        |       | 29 |
|         |            | COMPACT    | BENTLEY | CONTINEI   | 6         | 12     | Auto(S6)   | 4        |       | 29 |
|         |            | SUBCOMF    | BENTLEY | CONTINEI   | 6         | 12     | Auto(S6)   | 4        |       | 29 |
|         |            | TWO SEA    | LAMBOR  | GALLARD    | 5.2       | 10     | Manual(M&F | 4        |       | 22 |
|         |            | TWO SEA    | LAMBOR  | GALLARD    | 5.2       | 10     | Auto(S6)   | 4        |       | 22 |
|         |            | TWO SEA    | LAMBOR  | GALLARD    | 5.2       | 10     | Auto(S6)   | 4        |       | 22 |
|         |            | TWO SEA    | LAMBOR  | MURCIEL    | 6.5       | 12     | Manual(M&F | 4        |       | 17 |
|         |            | TWO SEA    | LAMBOR  | MURCIEL    | 6.5       | 12     | Auto(S6)   | 4        |       | 17 |
|         |            | TWO SEA    | LAMBOR  | MURCIEL    | 6.5       | 12     | Manual(M&F | 4        |       | 17 |
|         |            | TWO SEA    | LAMBOR  | MURCIEL    | 6.5       | 12     | Auto(S6)   | 4        |       | 17 |
|         |            | SUBCOMF    | VOLKSW  | A EOS      | 2         | 4      | Manual(M&F |          |       | 7  |
|         |            | SUBCOMF    | VOLKSW  | A EOS      | 2         | 4      | Auto(S6) F |          |       | 27 |
|         |            | COMPACT    | VOLKSW  | A GTI      | 2         | 4      | Auto(S6) F |          |       | 6  |
|         |            | COMPACT    | VOLKSW  | A GTI      | 2         | 4      | Manual(M&F |          |       | 7  |
|         |            | COMPACT    | VOLKSW  | A JETTA    | 2         | 4      | Auto(S6) F |          |       | 6  |
| Diesel; |            | COMPACT    | VOLKSW  | A JETTA    | 2         | 4      | Manual(M&F |          |       | 13 |
| Diesel; |            | COMPACT    | VOLKSW  | A JETTA    | 2         | 4      | Auto(S6) F |          |       | 13 |
|         |            | COMPACT    | VOLKSW  | A JETTA    | 2         | 4      | Manual(M&F |          |       | 7  |
|         |            | COMPACT    | VOLKSW  | A JETTA    | 2.5       | 5      | Manual(M&F |          |       | 21 |
|         |            | COMPACT    | VOLKSW  | A JETTA    | 2.5       | 5      | Auto(S6) F |          |       | 21 |
|         |            | SMALL ST   | VOLKSW  | A JETTA SP | 2         | 4      | Auto(S6) F |          |       | 6  |
| Diesel; |            | SMALL ST   | VOLKSW  | A JETTA SP | 2         | 4      | Manual(M&F |          |       | 13 |
| Diesel; |            | SMALL ST   | VOLKSW  | A JETTA SP | 2         | 4      | Auto(S6) F |          |       | 13 |
|         |            | SMALL ST   | VOLKSW  | A JETTA SP | 2         | 4      | Manual(M&F |          |       | 7  |
|         |            | SMALL ST   | VOLKSW  | A JETTA SP | 2.5       | 5      | Manual(M&F |          |       | 21 |
|         |            | SMALL ST   | VOLKSW  | A JETTA SP | 2.5       | 5      | Auto(S6) F |          |       | 21 |
|         |            | SUBCOMF    | VOLKSW  | A NEW BEE  | 2.5       | 5      | Manual(M&F |          |       | 5  |
|         |            | SUBCOMF    | VOLKSW  | A NEW BEE  | 2.5       | 5      | Auto(S6) F |          |       | 5  |
|         |            | MINICOMF   | VOLKSW  | A NEW BEE  | 2.5       | 5      | Manual(M&F |          |       | 5  |
|         |            | MINICOMF   | VOLKSW  | A NEW BEE  | 2.5       | 5      | Auto(S6) F |          |       | 5  |
|         |            | MIDSIZE (V | VOLKSW  | A PASSAT   | 2         | 4      | Auto(S6) F |          |       | 8  |
|         |            | MIDSIZE (V | VOLKSW  | A PASSAT   | 2         | 4      | Manual(M&F |          |       | 7  |

|                           |     |              |   |    |
|---------------------------|-----|--------------|---|----|
| MIDSIZE \$VOLKSWAPASSAT V | 2   | 4 Auto(S6) F |   | 8  |
| MIDSIZE \$VOLKSWAPASSAT V | 2   | 4 Manual(M&F |   | 7  |
| COMPACTVOLKSWARABBIT      | 2.5 | 5 Manual(M&F |   | 21 |
| COMPACTVOLKSWARABBIT      | 2.5 | 5 Auto(S6) F |   | 21 |
| S.U.V. - 2VOLKSWATIGUAN   | 2   | 4 Manual(M&F |   | 1  |
| S.U.V. - 2VOLKSWATIGUAN   | 2   | 4 Auto(S6) F |   | 1  |
| S.U.V. - 4VOLKSWATIGUAN 4 | 2   | 4 Auto(S6)   | 4 | 1  |
| S.U.V. - 4VOLKSWATOUAREC  | 4.2 | 8 Auto(S6)   | 4 | 14 |

| CITY | MPGHWY | MPGCOMB | MPUNRND | CIUNRND | H'UNRND | C'FUEL | TYP | GUZLR | TURBO | SPCHGR |
|------|--------|---------|---------|---------|---------|--------|-----|-------|-------|--------|
| 21   | 30     | 24      | 25.2484 | 40.8595 | 30.4907 | P      |     |       | T     |        |
| 22   | 28     | 24      | 27.1248 | 38.9863 | 31.4276 | P      |     |       | T     |        |
| 21   | 28     | 24      | 27.2    | 37.1    | 30.9119 | P      |     |       | T     |        |
| 17   | 26     | 20      | 22.0916 | 36.1369 | 26.7744 | P      |     |       |       |        |
| 16   | 27     | 20      | 20.5    | 35.8    | 25.3813 | P      |     |       |       |        |
| 17   | 26     | 20      | 22.0916 | 36.1369 | 26.7744 | P      |     |       |       |        |
| 13   | 18     | 15      | 16.2    | 24.6    | 19.1412 | P      |     |       |       |        |
| 12   | 19     | 15      | 15.3    | 26.8    | 18.9614 | P      | G   |       |       |        |
| 13   | 18     | 15      | 15.4    | 25.0451 | 18.6283 | P      | G   |       |       |        |
| 23   | 31     | 26      | 29.1    | 43.6    | 34.2214 | P      |     |       | T     |        |
| 21   | 29     | 24      | 27.575  | 39.6259 | 31.9471 | P      |     |       | T     |        |
| 22   | 30     | 25      | 28.5    | 42.2    | 33.3759 | P      |     |       | T     |        |
| 21   | 29     | 24      | 27.575  | 39.6259 | 31.9471 | P      |     |       | T     |        |
| 10   | 14     | 11      | 11.7    | 19.9    | 14.3634 | P      | G   |       | T     |        |
| 9    | 15     | 11      | 11.5028 | 21.0609 | 14.4549 | P      | G   |       | T     |        |
| 9    | 15     | 11      | 11.5028 | 21.0609 | 14.4549 | P      | G   |       | T     |        |
| 10   | 14     | 11      | 11.7    | 19.9    | 14.3634 | P      | G   |       | T     |        |
| 10   | 17     | 12      | 12.5188 | 23.259  | 15.8025 | P      | G   |       | T     |        |
| 10   | 17     | 13      | 12.8    | 23.8    | 16.1613 | P      | G   |       | T     |        |
| 10   | 17     | 12      | 12.5188 | 23.259  | 15.8025 | P      | G   |       | T     |        |
| 12   | 20     | 15      | 14      | 24      | 17.2308 | P      | G   |       |       |        |
| 14   | 20     | 16      | 16.1    | 25.4    | 19.276  | P      | G   |       |       |        |
| 13   | 20     | 16      | 16      | 25.4    | 19.197  | P      | G   |       |       |        |
| 8    | 13     | 10      | 10.1    | 17.5    | 12.4735 | P      | G   |       |       |        |
| 9    | 14     | 11      | 10.9    | 19.9    | 13.6852 | P      | G   |       |       |        |
| 8    | 13     | 10      | 10.1    | 17.5    | 12.4735 | P      | G   |       |       |        |
| 9    | 14     | 11      | 10.9    | 19.9    | 13.6852 | P      | G   |       |       |        |
| 21   | 31     | 25      | 26.1183 | 41.4311 | 31.3289 | P      |     |       | T     |        |
| 22   | 29     | 25      | 28.3    | 41.7    | 33.0841 | P      |     |       | T     |        |
| 22   | 29     | 25      | 28.3522 | 40.3742 | 32.739  | P      |     |       | T     |        |
| 21   | 31     | 25      | 26.1183 | 41.4311 | 31.3289 | P      |     |       | T     |        |
| 22   | 29     | 25      | 28.3522 | 40.3742 | 32.739  | P      |     |       | T     |        |
| 30   | 41     | 34      | 38.6    | 58.1    | 45.467  | D      |     |       | T     |        |
| 29   | 40     | 33      | 38.5034 | 56.6944 | 45.001  | D      |     |       | T     |        |
| 21   | 31     | 25      | 26.1183 | 41.4311 | 31.3289 | P      |     |       | T     |        |
| 21   | 29     | 24      | 23.8885 | 39.5591 | 29.0706 | R      |     |       |       |        |
| 21   | 29     | 24      | 24.7511 | 39.4589 | 29.7394 | R      |     |       |       |        |
| 22   | 29     | 25      | 28.3522 | 40.3742 | 32.739  | P      |     |       | T     |        |
| 30   | 41     | 34      | 38.6    | 58.1    | 45.467  | D      |     |       | T     |        |
| 29   | 40     | 33      | 38.5034 | 56.6944 | 45.001  | D      |     |       | T     |        |
| 21   | 31     | 25      | 26.1183 | 41.4311 | 31.3289 | P      |     |       | T     |        |
| 21   | 29     | 24      | 23.8885 | 39.5591 | 29.0706 | R      |     |       |       |        |
| 21   | 29     | 24      | 24.7511 | 39.4589 | 29.7394 | R      |     |       |       |        |
| 20   | 28     | 23      | 25.0356 | 39.3363 | 29.9325 | R      |     |       |       |        |
| 20   | 29     | 23      | 25.1672 | 40.8    | 30.4106 | R      |     |       |       |        |
| 20   | 28     | 23      | 25.259  | 39.1308 | 30.0532 | R      |     |       |       |        |
| 20   | 28     | 23      | 24.8494 | 39.7251 | 29.8854 | R      |     |       |       |        |
| 19   | 29     | 23      | 24.3    | 39      | 29.2635 | P      |     |       | T     |        |
| 21   | 31     | 25      | 26.1183 | 41.4311 | 31.3289 | P      |     |       | T     |        |

|    |    |    |         |         |          |   |
|----|----|----|---------|---------|----------|---|
| 19 | 28 | 22 | 23.7    | 38.5    | 28.6573P | T |
| 21 | 31 | 25 | 26.1183 | 41.4311 | 31.3289P | T |
| 21 | 29 | 24 | 24.2667 | 39.6266 | 29.3937R |   |
| 21 | 29 | 24 | 24.7511 | 39.4589 | 29.7394R |   |
| 19 | 26 | 21 | 23.3    | 36.2    | 27.75P   | T |
| 18 | 24 | 21 | 22.9    | 34.1    | 26.8716P | T |
| 18 | 24 | 20 | 22.4494 | 33.3    | 26.3068P | T |
| 13 | 18 | 15 | 15.7    | 25.1    | 18.8821P |   |

AVG 2D P.AVG 2D LIAVG 4D P.AVG 4D LIAVG HB P.AVG HB L'ANL FL CSENG BLK TRANS DEVLVS PER

|    |    |     |    |    |    |      |          |   |
|----|----|-----|----|----|----|------|----------|---|
|    |    | 89  | 20 |    |    | 1876 |          | 4 |
|    |    | 89  | 20 |    |    | 1876 | 3MODE    | 4 |
|    |    | 89  | 20 |    |    | 1876 | 3MODE    | 4 |
|    |    | 91  | 12 |    |    | 2250 | 3MODE CI | 4 |
| 84 | 12 |     |    |    |    | 2250 |          | 4 |
| 84 | 12 |     |    |    |    | 2250 | 3MODE CI | 4 |
|    |    |     |    |    |    | 3002 | 3MODE CI | 4 |
|    |    |     |    |    |    | 3002 |          | 4 |
|    |    |     |    |    |    | 3002 | 3MODE CI | 4 |
|    |    |     |    | 74 | 13 | 1732 | 3MODE    | 4 |
|    |    |     |    | 74 | 13 | 1876 | 3MODE    | 4 |
|    |    |     |    |    |    | 1800 | 3MODE    | 4 |
|    |    |     |    |    |    | 1876 | 3MODE    | 4 |
|    |    | 104 | 13 |    |    | 4090 | 3MODE CI | 4 |
|    |    | 111 | 13 |    |    | 4090 | 3MODE CI | 4 |
| 93 | 8  |     |    |    |    | 4090 | 3MODE CI | 4 |
| 97 | 11 |     |    |    |    | 4090 | 3MODE CI | 4 |
|    |    | 102 | 13 |    |    | 3748 | 3MODE CI | 4 |
| 89 | 11 |     |    |    |    | 3460 | 3MODE CI | 4 |
| 86 | 7  |     |    |    |    | 3748 | 3MODE CI | 4 |
|    |    |     |    |    |    | 3002 |          | 4 |
|    |    |     |    |    |    | 2812 | 2MODE    | 4 |
|    |    |     |    |    |    | 2812 | 2MODE    | 4 |
|    |    |     |    |    |    | 4500 |          | 4 |
|    |    |     |    |    |    | 4090 |          | 4 |
|    |    |     |    |    |    | 4500 |          | 4 |
|    |    |     |    |    |    | 4090 |          | 4 |
| 77 | 11 |     |    |    |    | 1800 |          | 4 |
| 77 | 11 |     |    |    |    | 1800 | 3MODE    | 4 |
|    |    |     |    | 94 | 15 | 1800 | 3MODE    | 4 |
|    |    |     |    | 94 | 15 | 1800 |          | 4 |
|    |    | 91  | 16 |    |    | 1800 | 3MODE    | 4 |
|    |    | 91  | 16 |    |    | 1235 |          | 4 |
|    |    | 91  | 16 |    |    | 1273 | 3MODE CI | 4 |
|    |    | 91  | 16 |    |    | 1800 |          | 4 |
|    |    | 91  | 16 |    |    | 1751 |          | 4 |
|    |    | 91  | 16 |    |    | 1751 | 3MODE CI | 4 |
|    |    | 92  | 33 |    |    | 1800 | 3MODE    | 4 |
|    |    | 92  | 33 |    |    | 1235 |          | 4 |
|    |    | 92  | 33 |    |    | 1273 | 3MODE CI | 4 |
|    |    | 92  | 33 |    |    | 1800 |          | 4 |
|    |    | 92  | 33 |    |    | 1751 |          | 4 |
|    |    | 92  | 33 |    |    | 1751 | 3MODE CI | 4 |
|    |    |     |    | 85 | 12 | 1827 |          | 4 |
|    |    |     |    | 85 | 12 | 1827 | 3MODE CI | 4 |
| 78 | 5  |     |    |    |    | 1827 |          | 4 |
| 78 | 5  |     |    |    |    | 1827 | 3MODE CI | 4 |
|    |    | 96  | 14 |    |    | 1958 | 3MODE CI | 4 |
|    |    | 96  | 14 |    |    | 1800 |          | 4 |

|    |    |    |    |      |          |   |
|----|----|----|----|------|----------|---|
| 97 | 36 |    |    | 2048 | 3MODE CI | 4 |
| 97 | 36 |    |    | 1800 |          | 4 |
|    |    | 94 | 15 | 1751 |          | 4 |
|    |    | 94 | 15 | 1751 | 3MODE CI | 4 |
|    |    |    |    | 2142 |          | 4 |
|    |    |    |    | 2142 | 3MODE CI | 4 |
|    |    |    |    | 2250 | 3MODE CI | 4 |
|    |    |    |    | 3002 | 3MODE CI | 4 |

| CLS | REL DT      | SALES         | 5C CODE | EPA Calculated Annual Fuel Cost |
|-----|-------------|---------------|---------|---------------------------------|
|     | 7 15-May-08 | 7125-CYCLE    |         | 1876                            |
|     | 7 15-May-08 | 21355-CYCLE   |         | 1876                            |
|     | 7 15-May-08 | 30255-CYCLE   |         | 1876                            |
|     | 4 20-Jun-08 | 38245-CYCLE   |         | 2250                            |
|     | 3 20-Jun-08 | 17665-CYCLE   |         | 2250                            |
|     | 3 20-Jun-08 | 57955-CYCLE   |         | 2250                            |
| 23  | 6-May-08    | 4960 DERIVED  |         | 3002                            |
|     | 1 20-Jun-08 | 332 DERIVED   |         | 3002                            |
|     | 1 20-Jun-08 | 416 DERIVED   |         | 3002                            |
|     | 3 15-Jun-08 | 1358 DERIVED  |         | 1732                            |
|     | 3 15-May-08 | 8575-CYCLE    |         | 1876                            |
|     | 1 15-Jun-08 | 1509 DERIVED  |         | 1800                            |
|     | 1 15-May-08 | 9915-CYCLE    |         | 1876                            |
|     | 5 30-Jan-08 | 62 DERIVED    |         | 4090                            |
|     | 6 30-Jan-08 | 3 DERIVED     |         | 4090                            |
|     | 4 30-Jan-08 | 103 DERIVED   |         | 4090                            |
|     | 4 30-Jan-08 | 104 DERIVED   |         | 4090                            |
|     | 5 30-Jun-08 | 815 DERIVED   |         | 3748                            |
|     | 4 30-Jun-08 | 514 DERIVED   |         | 3460                            |
|     | 3 30-Jun-08 | 1214 DERIVED  |         | 3748                            |
|     | 1 27-May-08 | 535-CYCLE     |         | 3002                            |
|     | 1 27-May-08 | 2995-CYCLE    |         | 2812                            |
|     | 1 27-May-08 | 1315-CYCLE    |         | 2812                            |
|     | 1 27-May-08 | 30 DERIVED    |         | 4500                            |
|     | 1 27-May-08 | 166 DERIVED   |         | 4090                            |
|     | 1 27-May-08 | 24 DERIVED    |         | 4500                            |
|     | 1 27-May-08 | 132 DERIVED   |         | 4090                            |
|     | 3 27-Jun-08 | 13655-CYCLE   |         | 1800                            |
|     | 3 27-Jun-08 | 100115-CYCLE  |         | 1800                            |
|     | 4 3-Mar-08  | 47995-CYCLE   |         | 1800                            |
|     | 4 27-Jun-08 | 46115-CYCLE   |         | 1800                            |
|     | 4 3-Mar-08  | 35455-CYCLE   |         | 1800                            |
|     | 4 20-Jun-08 | 16033 DERIVED |         | 1235                            |
|     | 4 20-Jun-08 | 29776 DERIVED |         | 1273                            |
|     | 4 27-Jun-08 | 19095-CYCLE   |         | 1800                            |
|     | 4 15-Feb-08 | 46255-CYCLE   |         | 1751                            |
|     | 4 15-Feb-08 | 531825-CYCLE  |         | 1751                            |
|     | 7 3-Mar-08  | 9555-CYCLE    |         | 1800                            |
|     | 7 20-Jun-08 | 4196 DERIVED  |         | 1235                            |
|     | 7 20-Jun-08 | 6294 DERIVED  |         | 1273                            |
|     | 7 27-Jun-08 | 4095-CYCLE    |         | 1800                            |
|     | 7 15-Feb-08 | 15515-CYCLE   |         | 1751                            |
|     | 7 15-Feb-08 | 75755-CYCLE   |         | 1751                            |
|     | 3 15-Feb-08 | 1327 DERIVED  |         | 1827                            |
|     | 3 15-Feb-08 | 13413 DERIVED |         | 1827                            |
|     | 2 15-Feb-08 | 859 DERIVED   |         | 1827                            |
|     | 2 15-Feb-08 | 13451 DERIVED |         | 1827                            |
|     | 5 3-Mar-08  | 173015-CYCLE  |         | 1958                            |
|     | 5 27-Jun-08 | 9115-CYCLE    |         | 1800                            |

|    |           |              |      |
|----|-----------|--------------|------|
| 8  | 3-Mar-08  | 56315-CYCLE  | 2048 |
| 8  | 27-Jun-08 | 1745-CYCLE   | 1800 |
| 4  | 15-Feb-08 | 49465-CYCLE  | 1751 |
| 4  | 15-Feb-08 | 87945-CYCLE  | 1751 |
| 22 | 15-Feb-08 | 1645DERIVED  | 2142 |
| 22 | 15-Feb-08 | 14805DERIVED | 2142 |
| 23 | 15-Feb-08 | 16450DERIVED | 2250 |
| 23 | 6-May-08  | 1335DERIVED  | 3002 |